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Comments: RE: Pumice Project Environmental Assessment

The Project Appears to Have Dramatically Changed for the Worse Since the Time When it was Scoped to the Public

As stated the 2011 scoping comments from KS Wild, EPIC and the Klamath Forest Alliance, our organizations are generally supportive of Forest Service proposals to conduct small-diameter thinning of white-fir encroachment in mixed conifer stands, implement thinning and mowing activities in existing plantations and utilize prescribed fire. We were hopeful when the Pumice project was first proposed in 2011 that the Goosenest District would work with conservation interests to implement a restoration project that also produce timber volume as a byproduct of forest resiliency treatments.

It appears that the Klamath National Forest (KNF) dramatically shifted course after project scoping and that the Pumice Project has morphed into a timber grab in which over 1,014 acres of Northern spotted owl (NSO) Nesting/Roosting habitat will be removed and 1,284 acres of NSO Foraging habitat will be removed. This is a substantial change in the content of the project and involves significant impacts to functional complex older forest types that necessitate completion of an Environmental Impact Statement (EIS) for this project. If the KNF now wishes to implement a timber sale that is focused on the removal of NSO habitat, rather than a collaborative restoration project to improve forest health and fire resiliency, then the agency must re-scope the project to reflect this substantial change in the purpose (and effects) of the project. In short, the 2020 timber sale that focusses on removing spotted owl habitat is a far cry from the restoration project that was initiated in 2011.

The KNF is gaining a reputation as the only Forest in the region that simply refuses to engage in substantive collaboration to incorporate conservation values and sideboards into project planning. While surrounding National Forests enjoy robust collaboratives that represent a wide variety of stakeholders, it often appears that timber industry proponents are the only voice that the KNF values. We urge the KNF to please take this opportunity to collaboratively work with the concerned public to develop and implement a project that restores fire as an ecosystem process and reduces wildfire hazards while retaining, rather than removing older forests providing NSO habitat.

Northern Spotted Owl Habitat

The proposal to remove nearly 2,200 acres of NSO Nesting, Roosting and Foraging (NRF) habitat in this project is extremely disappointing. Such widespread habitat removal is controversial and removes, rather than restores, ecosystem and habitat functions. The impacts associated with this scale of habitat removal must be documented in a site-specific EIS.

Please note that while the EA provides information regarding the acreage of NRF removal in the Pumice timber sale, the EA lacks any analysis or disclosure of the impacts of widespread habitat removal on spotted owls or any other species.

While the Pumice EA fails to analyze or disclose the effects of habitat removal, the NSO Biological Opinion (BiOp) indicates that the project is likely to adversely affect spotted owls and their critical habitat. Thus an EIS must be prepared for this timber sale.

Management direction and standards and guidelines in the KNF[rsquo]s Forest Plan require the maintenance or

improvement of habitat for Endangered, Threatened and Sensitive species and the application of Recovery Plans for individual species (USDA-FS 1994 pp 4-6). The removal of NRF and critical habitat for NSO violates this provision of the KNF Forest Plan. Please further note that the Forest Service intends to remove and downgrade Recovery Action (RA) 32 habitat in violation of the KNF Forest Plan requirement to implement the NSO Recovery Plan.

The cumulative impacts to NSO in this planning area are clearly significant and must be documented in an EIS. As stated on page 12 of the BiOp [ldquo]NSOs also likely use larger home ranges in these higher elevation sites and the project area is bounded by larger, past projects that have removed and downgraded a considerable amount of foraging habitat. The value of the habitat that remains in the action area contributes directly to the intended conservation value of the recovery unit.[rdquo]

Page 13 of the Biological Opinion indicates that:

[ldquo]Our analysis of the proposed thinning treatments in suitable habitat, combined with our review of stand conditions and habitat retention areas, concludes overall treatments remove 70 percent of the suitable habitat treated. While the action area is located at a higher elevation in general it supports NSO habitat and four NSO territories; including long-term pair occupancy and evidence of use by single NSOs. There is also a high barred owl density. The impacts represent a removal, or reduced overall function, of habitat in 57 percent of the suitable habitat in the project area and 22 percent of this habitat in the action area.[rdquo]

While not acknowledged or analyzed in the Pumice NEPA document, such impacts are significant and necessitate the completion of an EIS for this project.

As noted on page 43 of the BiOp, the Forest Service and USFWS do not know the exact location of the nesting site for spotted owls that will be impacted by the widespread habitat removal. Hence the project involves considerable uncertainty necessitating completion of an EIS.

Page 58 of the BiOp indicates that the Pumice timber sale [ldquo]will remove NR habitat on 934 acres[hellip]The residual basal area and canopy cover sill represent an open stand with little vertical or horizontal forest complexity.[rdquo] This is a significant impact, that was not subject to scoping, and that must be analyzed and disclosed in an EIS.

As stated on page 59 of the BiOp the [ldquo]removal and downgrading of NR habitat are expected to have long-term adverse impacts to NSO and their prey. After treatment, the stands will simply lack the characteristics that allow owls to successfully nest (and roost).[rdquo] These long-term significant impacts to NSO and their prey must be analyzed and disclosed by the KNF in an EIS.

The removal of 42% (!) of NSO foraging habitat in the project area (BiOp page 59) is clearly a significant action necessitating completion of an EIS. Please note that the EA does not analyze or disclose the effects of removing 42% of the NSO foraging habitat from the project area.

The Pumice EA fails to acknowledge or address the impacts to NSO prey species, such as Northern Flying Squirrels, that are identified on page 63 of the BiOp. Please note that the Biological Opinion for the Pumice timber sale indicates that significant controversy and uncertainty exists regarding the impacts of logging on flying squirrels (that the Forest Service fails to address in the EA) such that an EIS must be prepared for this project. As stated on page 64 of the BiOp [ldquo][w]here habitat is removed on 2,173 acres, significant impacts to flying squirrels or their habitat is expected over the short and long term.[rdquo]

Please note that page 64 of the BiOp indicates that the KNF intends to remove 6 acres of NR habitat to facilitate log landing construction and establishment. The Pumice EA does not reveal the location or the impacts of NR

habitat removal to facilitate landing establishment, nor does the EA disclose whether other landing locations might be available in order to avoid removal of NR habitat to facilitate log landings.

Page 65 of the BiOp indicates that USFWS biologists expect [ldquo]the longer-term effects of habitat removal and adverse effects to NSO to be realized on the landscape for 20 to 40 years, given the intensity of thinning and habitat removal, and the continuity of treatment areas.[rdquo] 20 to 40 years of adverse effects to an ESA-listed species represents a significant long-term impact of the timber sale that must be analyzed and disclosed in an EIS.

As stated on page 65 of the BiOp the 2011 NSO Recovery Plan indicates that active dry forest management should be conducted to facilitate [ldquo]conservation of NSO habitat.[rdquo] In the Pumice timber sale the KNF active dry forest logging prescriptions are designed to remove, rather than to conserve, NSO habitat. Hence the timber sale undercuts the conservation objectives of the NSO Recovery Plan which the KNF RMP directs the agency to implement.

At every temporal and physical scale the impacts of the Pumice timber sale on NSO and their habitat are significant such that an EIS is required. As stated on page 66 of the BiOp:

[ldquo]The removal of suitable habitat from 22 percent of what is available in the action area is likely to have long-term adverse effects on NSO foraging and dispersal behaviors, as well as NSO prey abundance and distribution, because of the loss of habitat structure and complexity. There will be a long-term loss and simplification of vertical and horizontal structure that provides hiding and thermal cover, perching and roosting sites, and prey habitat.[rdquo]

The Pumice EA largely fails to analyze or disclose the interaction between NSO habitat removal and barred owl encroachment and competition. As stated on page 70 of the BiOp [ldquo][w]here the two species compete directly for resources, maintaining larger amounts of older, higher quality forest as it is available may help NSPs persist in the short term and reduce competitive interactions (Dugger et.al 2011, 2015). Due to the extensive scale of high quality NSO habitat removal proposed in the Pumice timber sale the USFWS concludes [ldquo]that the direct or indirect influence of barred owls is a significant factor in determining the effects of the [Pumice timber sale] project on NSO.[rdquo] BiOp page 71.

The Pumice timber sale EA is largely silent as to the effects of logging 1,285 acres of critical habitat (including over 500-acres of NRF downgrading and removal) on the NSO. Indeed, such a dramatic impact to critical habitat was not contemplated or proposed when the project was initially developed and scoped. Please note that page 78 of the BiOp indicates that [ldquo][a]ll of the unoccupied and likely occupied areas [in ECS-3] are essential for the conservation of the species to meet the recovery criterion that calls for the continued maintenance and recruitment of NSO habitat.[rdquo] Yet the Forest Service is proposing to downgrade and remove this critical habitat has been deemed [ldquo]essential for the conservation of the species.[rdquo]

At page 87 of the Biological Opinion the USFWS recommends that as part of the Pumice timber sale the KNF incorporate [ldquo]additional retention areas within suitable habitat outside the NSO territories in order to maintain connectivity in the action area and contribute to the recovery unit[rsquo]s conservation role.[rdquo] The EA does not disclose whether the KNF incorporated this conservation recommendation into its timber sale planning and layout.

The removal of 509 acres of spotted owl critical habitat is a major federal action with significant environmental impacts necessitating completion of an EIS for this project.

Large Tree Retention

Please note that page 4 of the Silviculture Report indicates that only 2% of the project area is comprised of forest stands with a size class of >24[rdquo] Diameter Breast Height (DBH). This makes it essential that the Forest Service retain the few large diameter trees and forest stands that remain in the project area. The project[rsquo]s purpose and need will be undermined by the removal of the few remaining large diameter trees in the project area. Please implement an upper 24[rdquo] DBH harvest limit.

New Road Construction and Road Density

The Pumice EA largely fails to analyze and disclose the impacts of temporary road construction and reconstruction in conjunction with the establishment of new log landings.

An example of the scope of impacts from temporary road construction that must be analyzed in the forthcoming NEPA document occurs in the Klamath National Forest[rsquo]s DEIS for the Mt. Ashland LSR Project:

[ldquo]Temporary spur road construction may increase road density, result in habitat fragmentation, increase edge habitat, and result in harassment to wildlife.[rdquo] Mt. Ashland LSR Project DEIS, 3-24.

We would also like to bring to your attention the following findings of the KNF Forest [ndash] Wide LSR Assessment:

[ldquo]The most pervasive human impact to the health and connectivity of aquatic systems within the LSRs is the construction and maintenance of roads.[rdquo] LSRA 2-17

[ldquo]Roads can affect ecosystems in several ways. Road construction removes and fragments habitat, increases sedimentation in streams, impedes stream flow, affects wildlife distribution and movements, and increases the potential for outside disturbance factors.[rdquo] LSRA 2-31

[ldquo][O]pen road densities above 2 miles per square mile may be a threshold for concern, in that human use could negatively impact use of adjacent habitats.[rdquo] LSRA 2-31

[ldquo]Road densities within the LSRs should be assessed on the seventh field watershed scale. Generally, road densities below two miles per square mile are considered acceptable levels of risk. Two miles per square mile is a target to reduce toward, and does not imply increased road construction is acceptable in areas currently below that density.[rdquo] LSRA 1-8

[ldquo]Reducing road densities on unstable lands within LSRs is likely to provide the greatest benefit to aquatic resources and is the highest priority.[rdquo] LSRA 1-22

Please note that page 16 of the Goosenest AMA Guide indicates that:

[ldquo]Road-related impacts, such as erosion and altered hydrology, are one of the top causes of watershed problems in the intermingled public and private lands (checkerboard ownership) of Butte and Antelope Creeks.[rdquo]

Page 3-3 of the Goosenest AMA Ecosystem Analysis confirms that:

[ldquo]The primary cumulative watershed impact affecting beneficial uses in Butte or Antelope Creeks is increased sedimentation resulting from roads and timber harvest. Roads are a long-term sediment source to streams, although the amount of erosion from roads is quite variable.[rdquo]

Page 3-4 of the AMA EA indicates that:

[ldquo]The Haight Mountain, Pomeroy Creek, and Alder Creek subwatersheds each have HIGH road densities and HIGH or VERY HIGH disturbance levels.[rdquo] (Emphasis in the original).

Page 3-5 of the AMA EA states:

[ldquo]Roads in the Riparian Reserves constitute a long lasting or permanent impact. These roads represent greater potential sediment sources than upslope roads due to their proximity to streams. They also cause a loss of growing sites in the Riparian Reserves, decreasing stream shade and potential large wood recruitment. Overall there are about 39 miles of roads in the Riparian Reserve portion of the AMA. This is a road density of about 3.1 miles per square mile, higher than average for the total lands in the AMA.[rdquo]

Based on those Forest Service findings, we think it essential that road density in the planning be reduced through project implementation. It is reasonable to develop and implement an action alternative that addresses the concerns identified by the agency above.

Shasta Red Fir

Patch-scale tree mortality observed in the analysis area is consistent with historical stand development patterns recorded in other Abies magnifica forests unaffected by fire suppression or other silvicultural management. Stand development in red fir forest occurs both through episodic and continuous seedling recruitment, which is a function of periodic disturbance and the ability of red fir to colonize small gaps in the forest (Taylor and Halpern 1991). Red fir can establish in the partial shade of small canopy gaps or in the more severe microclimates of larger gaps (Selter et al. 1986). According to Agee (1993), the most important small-scale disturbances that promote red fir regeneration or the release of understory saplings include Indian paint fungus (Echinodontium tinctorium) or fir engraver beetle (Scolytus ventralis). Old-growth stands at Castle Point near Crater Lake featured red firs of various ages up to 525 years with a pronounced 30- to-60-year-old cohort that probably established in a group release after canopy gap creation by one or more such disturbance agents (Agee 1993). Thus, disease and beetle kill are intrinsic to the adapted gap dynamics of red fir forests.

Please note the findings contained in Chappell and Agee, 1996, Fire Severity and Tree Seedling Establishments in Abies Magniffica Forests, Southern Cascades, Oregon. Ecological Applications, Vol. 6, No. 2 (May, 1996), 628.

Chappel and Agee conclude that:

-The role of disturbance in the development and dynamics of red fir forests has been perplexing, in part, because of a seeming contradiction: red fir is both (1) shade-tolerant and self perpetuating, and (2) regenerates abundantly after some major disturbances, including fire and wind (Taylor and Halpern 1991).

-Regeneration in clearcuts is highly variable and often inadequate from a silvicultural perspective (Gratkowski 1958, Gordon 1970.)

-Red fir seedling establishment and growth is strongly related to periodic disturbance. The existence of episodic regeneration after disturbance does not preclude however, the simultaneous occurrence of a more continuous, slower mode of regeneration that allows red fir to perpetuate itself indefinitely (Taylor and Halpern 1991).

-Retention of a partial canopy after disturbance favors red fir seedling establishment. The resultant shade ameliorates drought stress, a key mortality agent for red fir seedlings (Gordon 1970, Ustin et al. 1984, Selter et al 1986).

-As Picher (1987) noted in the southern Sierra Nevada, fire suppression in red fir forests probably has not altered fuel loads or stand structure to a point outside the natural range of variability within a stand, as it has in lower elevation mixed conifer stands.

Please do not assume that late-successional habitat characteristics of red fir stands [ldquo]disappear[rdquo] when trees die. Dead trees, if not removed from the forest, provide ideal coarse woody denning and forage habitat benefiting carnivores and insectivorous birds closely associated with late-successional forests (Bull 2002, Aubrey and Raley 2002).

We note that page 24 of the Goosenest AMA guide (at R1) indicates that the agency is engaged in a long-term study regarding the decomposition of small diameter woody debris in Red fir stands.

Please incorporate the following findings at page 5-19 of the Goosenest AMA EA:

[ldquo]Past timber harvest activities removed blocks of late-seral red fir that have been slow to regenerate. Red fir doesn[rsquo]t respond well to intensive forest management that creates large openings. In these large openings, competition and shading from shrubs and grasses and frost damage inhibit establishment and growth.[rdquo]

[ldquo]Late-seral red fir forests provide important habitat for many wildlife species, some of which are sensitive, rare, and/or endangered. These species include northern spotted owls, northern goshawks, and American marten. Late-seral red fir forests provide an important habitat link to the south, on the McCloud plateau. Mature dense stands of red fir adjacent to riparian communities provide important habitat components for many wildlife species dependent on riparian areas for food. These species include great gray owls, and many small birds and mammals, including numerous bat species.[rdquo]

Lastly, please note that page 8 of the Silviculture Report indicates that field [ldquo]reviews noted very few insects and disease[rdquo] in Red fir stands within the project area.

Soils and Tractor Yarding

Two of the Project Design Features (PDFs) concerned us: 1) Allowing up to 20% of harvest units to be disturbed by skid trails and landings, and 2) Allowing tractors to leave skid trails to access isolated logs. We urge the agency to please take steps to limit tractor disturbance in units to less than 15% and to require that tractors remain on designated skid trails to minimize impacts to soil resources.

Soils and Machine Piling

The Goosenest Ranger District has been subject to several unfortunate instances of inappropriate machine slash piling that has severely impacted soil and vegetation resources. The Pumice EA does not disclose whether machine piling will occur, nor does the EA analyze or disclose the impacts of machine slash piling.

Large Snag Retention

It appears that the Forest Service intends to retain [ldquo]a minimum of 5 snags per acre[rdquo] for wildlife needs in harvest units. Please consider retaining as many large-diameter snags (both in clumps and individually) as an important component of stand diversity and wildlife habitat. Please do not target large wildlife snags for felling or removal unless absolutely necessary.

American Marten and Pacific Fisher

Please note that page 13 of the Goosenest AMA guide indicates that [ldquo]knowledge of the distribution and relative abundance of marten and fisher is limited.[rdquo] Hence, [ldquo]a systematic survey would strengthen District knowledge on occurrence and relative abundance of marten and fisher, allowing a determination of the effects of land management activities.[rdquo] Please ensure that the project retains and provides habitat for these species of concern.

Wildlife Values of Lodgepole Stands

Page 13 of the Goosenest AMA guide indicates that there are [ldquo]important wildlife needs in lodgepole stands.[rdquo] The Pumice EA fails to acknowledge or quantify these wildlife needs or the impacts of the timber sale upon those needs.

Please note that page 5-18 of the AMA EA indicates:

[ldquo]Lodgepole pine forests have high value to wildlife for forage, nesting and denning habitat. The amount of wildlife varies, depending upon adjacent plant communities. Lodgepole stands next to riparian areas receive very high usage and are rich in species diversity. Thirty-one mammals and almost 50 bird species use lodgepole pine forests for food, cover, or habitat. Dead or dying trees provide nesting sites for many cavity nesting birds. Fallen branches and numerous downed trees provide sites for groundnesting birds and mammals. Abundant lodgepole seeds are a food source for squirrels, chipmonks, birds and mice. The high populations of small mammals and birds provide a good prey base for forest predators, specifically northern goshawks and American marten.[rdquo]

The findings of the KNF AMA EA are not acknowledged or reflected in the Pumice EA.

Migratory Bird Species

Page 7 of the Goosenest AMA guide states:

[ldquo]The costs of monitoring landbirds, which respond quickly to habitat changes, is relatively low compared to costs for assessing other biological components. Landbird species composition and population dynamics can be used to track management actions or results toward the desired conditions.[rdquo]

The Pumice EA fails to analyze and disclose impacts to landbirds and does not quantify the impacts of project activities on landbird population dynamics.

Noxious Weeds

The Pumice EA fails to analyze or disclose the impacts of logging, yarding, landing establishment and log haul on the spread of noxious weeds.

Prescribed Fire and Forest Resiliency

Page 10 of the Pumice EA indicates that [ldquo]Alternative 2 has the most acres of proposed underburning and would be the most effective at reintroducing fire to the ecosystem.[rdquo] Hence we urge the KNF to select and implement Alternative 2 while avoiding the widespread NSO habitat removal contained in Alternative 3. Please also note that page 12 of the EA indicates that Alternative 2 would have marginally better impacts on potential future flame lengths than Alternative 3 and that [ldquo]Alternative 2 provides the longest window of improved stand resilience to undesirable tree mortality.[rdquo]

Conclusion

We hope the KNF will return its focus to needed prescribed fire and understory thinning as proposed in the scoping notice and in Alternative 2. The dramatic shift towards habitat removal that has occurred since the project was scoped as proposed in Alternative 3 of the EA is inappropriate and counterproductive. We would like to work collaboratively with the Forest Service to minimize impacts to existing NSO NRF habitat in order to ensure that needed burning and thinning occurs that retains, rather than removes, needed wildlife habitat.

Thank you for considering our comments and concerns.