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objections-pnw-siuslaw@fs.fed.us

C/O: Project Planner, Donni Vogel, dvogel@fs.fed.us

DATE: August 20, 2018

From: Paul Engelmeyer
Lead Objector
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Ten Mile Creek Sanctuary
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[REDACTED]

Project Name: Indian Creek Landscape Management Project
Responsible Official: **Project Planner, Donni Vogel**, Michele Jones, District Ranger,
Siuslaw National Forest, Central Coast District Ranger

Formal Objection

Dear Ms. Vogel: Please consider this my formal objection to the current FONSI for the Indian Creek Landscape Management Project.

While I am pleased the Siuslaw NF (SNF) is moving forward with a restoration strategy of our plantation forests in the Indian Creek watershed and am very supportive of careful thinning of dense young stands, restoring stream complexity by placing large wood in streams, as well as efforts to reduce the watershed impacts of the road system by storing/closing/decommissioning and properly maintaining roads and their drainage systems, I have identified key issues that have not been addressed in this FONSI.

Key issues that I have raised with you previously but that have not adequately been addressed include:

- I have identified 18 units that have been thinned previously and are ecologically moving in the right direction. I object to the proposed thinning of these stands. Some of these stands have an average of more than 25 inch dbh and the canopy is closed. They are adjacent to occupied murrelet stands as well as dispersal habitat for the Northern Spotted Owl. Thinning in these stands will adversely impact these species and must be curtailed.

- Roads have well-documented, significant and widespread ecological impacts across multiple scales, often far beyond the area of the road “footprint”. Such impacts often create large and extensive departures from the natural conditions to which organisms are adapted, which increase with the extent and/or density of the road network. Road density is a useful metric or indicator of human impact at all scales broader than a single local site because it integrates impacts of human disturbance from activities that are associated with roads and their use (e.g., timber harvest, mining, human wildfire ignitions, invasive species introduction and spread, etc.) with direct road impacts. There is a road density target that has not been incorporated in the Indian Creek Landscape Plan. I reference the work of Chris Frissell and Pacific Rivers Council. *‘Aquatic and Other Environmental Impacts of Roads: The Case for Road Density as Indicator of Human Disturbance and Road- Density Reduction as Restoration Target; A Concise Review’*. Pacific Rivers Council Science Publication 09-001
- Alternative 2 does not clearly address the need to improve ‘Interior forest’ conditions: The Assessment Report for Federal Lands in the Coast Range completed by the SNF in 1992 identified interior forest percentages by subwatershed - the North Fork Siuslaw is approximately 11% Interior Forest. This is inadequate to protect sensitive and threatened species. Actions associated with the Alternative 2 restoration strategy will not clearly increase the percentage of ‘Interior forest conditions’. Management actions including road closures/decommissionings must show how improved interior forest conditions will be achieved.
- The FONSI decision fails to incorporate the creation of effective no-cut buffers adjacent to suitable and occupied stands. The buffers that are provided remain inadequate to truly protect occupied stands. The 40% and 60% canopy closure adjacent to identified occupied murrelet stands is not protective enough. I believe it does not make sense to risk compromising these stands in the near term in order to create older forest conditions in the long term. The need for no cut buffers is well supported in the literature: Intact buffers around occupied, suitable, and restoration sites are needed to maintain or allow the creation of high-quality nesting habitat (McShane et al. 2004), reduce potential for blowdown (Jaross and Read 2006), maintain microclimate (Chen et al. 1993, 1995, Kremsater and Bunnell 1999, McShane et al. 2004), and reduce the impacts of hard edges, which have been linked to increased nest predation (Nelson et al. 2002).

These references show that intact buffers around occupied, suitable, and restoration sites are needed to maintain or allow the creation of high-quality nesting habitat, reduce potential for blowdown, maintain microclimate, reduce the impacts of hard edges, which has been clearly linked to nest predation. Research has found that sites at timber harvest edges had lower moss abundance than interior nest sites and natural edge sites (stream corridors and avalanche chutes) due to stronger winds, higher temperature variability, and lower moisture retention when compared with interior sites. Maintaining microclimate is critical to maintaining moisture in the stand to help moss development and aid in proper thermoregulation of adults and chicks.

Windthrow or blowdown can result from the clearcut harvest of adjoining areas and on ridges exposed to high winds. Malt and Lank (2007) also found that sites at timber harvest edges had lower moss abundance than interior nest sites and natural edge sites (stream corridors and avalanche chutes) due to stronger winds, higher temperature variability, and lower moisture retention when compared with interior sites. Maintaining microclimate is critical to maintaining moisture in the stand to help moss development and aid in proper thermoregulation of adults and chicks.

Murrelets nesting at edges, and especially hard edges bordering open areas like thinned stands and clearcuts, appear to be at greater risk of predation than in the forest interior. Given that nest predation appears to be a dominant demographic driver for the murrelet (McShane et al. 2004; Nelson 1997; Peery et al. 2004, 2006a; Piatt et al. 2007), any forest alteration that increases predation risk is likely to have a negative and perhaps serious impact on local murrelet populations. Reducing predator risks by minimizing edge habitats and controlling corvid access to garbage and human food (e.g., at campsites) is also likely to benefit murrelets in modified landscapes.

Raphael et al. (2008) recommend that pole-sized or larger trees be maintained in 100% of the area within a minimum of 328 foot (100 m) around occupied murrelet stands and older forest sites. Landscape analyses at known murrelet nests and research at artificial murrelet nests has shown that simple-structured stands adjacent to nesting areas may decrease predation at nests (Raphael et al. 2002a, Ripple et al. 2003), demonstrating the value of uncut buffers to suitable murrelet habitat.

While there are no data with respect to murrelets to support a buffer size of 328 feet, Chen et al. (1993, 1995) have demonstrated microclimate effects of clearcut edges to >780 feet [237 m] into the forest interior.

Larger patches of interior forest located away from forest edges are more likely to help protect nesting marbled murrelets from the effects of predation, changes to microclimate, and other types of disturbance events and activities. Interior forest is not subject to edge effects.

Research indicates that maintaining older, maturing forest adjacent to nesting habitat also reduces predation risk.

A paper by Forsman et al **Roosting Habitat Use and Selection by NSP 2015** in the **Journal of Wildlife Management** draws attention to the need to maintain canopy closure closer to 80%. While this study focused on fire impacts it appears to be relevant to management of thinned stands as well. I urge you to take this precautionary approach and incorporate this direction in your thinning program.

Taken as a whole, research to date suggests that, apart from increasing the amount of nesting habitat and reducing its fragmentation, managing forest structure to reduce nest predation risk should be approached with consideration of local factors that might affect predator densities (e.g., overstory thinning that might result in increased abundance of berry-producing early-seral shrubs that attract corvids).

The proposed FS prescription of 40 tpa (40% canopy cover) in 300 ft. buffers adjacent to suitable and occupied marbled murrelet habitat demonstrates that the Forest Service is not using the best available science to recover and protect marbled murrelets. The objectives and goals of the Pacific Northwest Forest Plan directed that habitat management and restoration should benefit recovery efforts for marbled murrelets and Northern spotted owls. In actuality, in my opinion the proposed FS thinning projects of 40 tpa would further jeopardize Marbled Murrelets in these basins in the very near term for up to a few decades at least.

The issue of connectivity from the Indian Creek catchments to upper Big and Ten Mile Creek is of big concern to me. While I commented on the draft EA last year I realize that I may not have drawn attention to the fact that just over the ridge from the Indian Creek upper tributaries is a Globally Significant Important Bird Area for the ESA listed Marbled Murrelet, identified by Birdlife International. If one looks closely, some of the stands of plantations slated for thinning abut this important area.

Also, of special concern to me are the older forest stands that actually cross the ridges from one basin to the other - like upper Ten Mile and Big Creek basins to the upper tributaries of Indian Creek like Rogers, and Maria Creeks. Those intact older forests that connect the headwaters of different catchments are ecologically valuable in our fragmented landscape. These stands in particular should retain the no-cut buffers in an attempt to protect the interior forest conditions. The 40% and 60% canopy closure prescription for stands adjacent to occupied murrelet stands are too aggressive and may allow not only the corvids to impact nesting success of the ESA listed Murrelet but impact flying squirrels as well.

While some research appears to indicate that no-cut buffer size to be over one site potential tree - approximately 300ft and other research indicates microclimate effects of clearcut edges to over 700 feet into the forest interior.

Resolutions Requested

Buffer Conditions;

Therefore, in light of this research and the need for a precautionary approach so as to ensure that stand integrity is maintained and any effects from the surrounding landscape

on existing and future murrelet habitat is minimized, that buffers are maintained that are greater than 328 feet and up to at least 656 feet (200 m) depending on the adjacent habitat. This approach is proactive strategy as opposed to cutting to 40% tpa and finding out in the future it was too aggressive.

- Enhance the protection of occupied sites using buffers and other protective measures adjacent to occupied sites. Since marbled murrelets frequently re-use their nesting areas (Nelson 1997), enhancing the protection of occupied sites is a strategy that would likely reduce the risk of birds having to move nest locations.
- Do not re-enter the 18 units previously thinned (Units with tree densities below 100 trees and with diameters (dbh) greater than 24 inches.) These units are already on a trajectory towards late seral and therefore do not need to be thinned. The only management that would possibly enhance those identified units could be to use some of those trees for snag creation in the near-term and again in the future as it is well documented that as a result of past actions there is a deficit of snags and large wood on the forest floor in this planning area. This would also create an opportunity to keep a closed canopy but improving habitat complexity in the near term.
- Incorporate the latest research concerning thinning recommendations for red tree vole and flying squirrel habitat and other sensitive species like the Humboldt Marten. There is no mention of these issues in the FONSI.
- Minimize the juxtaposition of clearcuts with berry producing vegetation. Jay densities in particular are significantly higher in areas where abundant food is available both in open areas and nearby forests (Masselink 2001). As discussed above, buffers greater than 328 feet (100 m) and up to at least 656 feet (200 m) should be maintained to minimize the risk of predation to the occupied site.
- Retain unthinned "skips," both within and between units. These unthinned "skips" could be located adjacent to occupied stands - we would get the mix of habitat diversity as well as protecting occupied stands from corvids.

Regarding Roads

- Fully fund an analysis of current and legacy roads within the Planning Area that would prioritize road decommissioning projects in order to meet the direction of the Northwest Forest Plan of road densities per square mile of land.

- In regards to culvert replacement and in-stream large wood placement I drew attention to concerns related to potential impacts to freshwater mussels. I again urge the SNF to incorporate the latest information concerning freshwater mussels.
- Reference the Best Management Practices of the Xerces Society 2018: https://xerces.org/wp-content/uploads/2018/01/2018-001_Freshwater_Mussel_BMPs_XercesSociety.pdf
- The road density and decommissioning analysis and program should include risks and / or benefits to the Marten and Flying Squirrel. In some cases it may be beneficial to rewild portions of the road to improve connectivity and create interior forest conditions.
- Develop a 'Biological research and monitoring strategy' within SNF thinning program. I support having the SNF engage with the OSU Wildlife Research Unit and the Murrelet Research team in order to develop a research and monitoring project in the near term.
- Use thinning efforts as an opportunity to learn by conducting monitoring and research on Red Tree Vole/Flying Squirrel use as well Humboldt Martin impacts of these differing thinning densities. There are many information gaps that need filling. Every project could potentially generate useful information that will improve future thinning projects.

Invasive Species

- SNF should prioritize manual and mechanical controls over the use of herbicides. The new information concerning significant negative human health and ecological impacts that result from use of glyphates and other herbicides continues to grow. Alternative control measures should be the highest priority.

Fragmented Landscape

There is a need and an opportunity to reach out to adjacent landowner in an attempt to create plans that would provide adequate buffers to all occupied stands. USFWS Murrelet Recovery plans identifies the need to protect all occupied stands. There are clear example of impacts from adjacent timber operations creating blow down/edge effects on occupied murrelet stands.

I truly appreciate this opportunity to engage in the Indian Creek Landscape Planning process. I have worked in the central coast basins for over 25 years - partnering with state and federal agencies as well as local community members on protection and restoration actions for the Northern Spotted Owl, coho salmon and the Marbled Murrelet. My perspective is a precautionary one - while I endorse the long term goal of improving plantation habitat and moving it toward older forest conditions I find my short term concerns of predation and potential impacts to multiple species to be of a higher priority.

I am more than willing to work with other land managers, scientists and Forest Service staff on the details necessary to develop a precautionary plan for the Indian Creek landscape plan.

Signature: *Paul Engelmeyer* ***Date:*** *August 20, 2018*

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