

Data Submitted (UTC 11): 8/16/2024 7:00:00 AM

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Organization:

Title:

Comments: 15 August 2024

Michele Holman, District Ranger

Siuslaw National Forest

1130 Forestry Lane

Waldport OR 97394-0400

Dear Ms. Holman,

I would like to submit a written comment regarding the North Fork Smith River Restoration Project, which has two main purposes: terrestrial and aquatic restoration.

Key project activities proposed include:

- Conduct a commercial thinning harvest on 4,113 acres
- Great gaps up to 1 acre in size involving a total of 166 acres
- Construct 15 miles of new, temporary roads
- Rebuild 840 landings and create 26 new ones
- Fell trees along ~20 miles of streams
- Spray herbicides on ~250 acres to control invasive plants
- Ensure roads are safe for public access and develop a new quarry

Commercial thinning was defined by Case et al. (2023) as cutting 60-71 year old trees as opposed to pre-commercial thinning, which targets 15-30 year old trees. Gaps are areas that are cut (not just thinned).

The project states that sales from this timber harvest are required in order to fund the restoration actions.

It is hard to envision that this level of management will result in the desired goals, which include:

- Development of old-growth habitat
- Decreased fragmentation
- Improved aquatic ecosystems
- Invasive plant control

The plan includes notes from the Late Successional Reserve Assessment that state, "Without thinning and underplanting, the managed stands would eventually develop late-successional characteristics." While there are several studies that claim thinning accelerates development of old-growth characteristics in forests, most have been conducted over relatively short periods of time (e.g., 13 years for Case et al., 2023). The degree of accelerated growth and how much time is needed to develop old-growth characteristics is difficult to assess (Reilly & Spies, 2015), because forest succession and ecosystem development take long periods of time (Franklin et al., 2002). Additionally, competition among trees facilitates selection of the most vigorous trees, which may enhance their ability to adapt to climate change (Magalhaes et al., 2021). Carbon storage is another consideration - Carlisle et al. (2023) modeled that over a 240-year time frame, high-intensity thinning (i.e., commercial thinning) reduced total carbon sequestered for all productivity levels and harvest rotation ages. A major role in the assimilation of CO₂ by mature trees (e.g., 180 year old *Quercus robur* L.), compared to young tree plantations, was demonstrated by Norby et al. (2024). A review exploring the pros and cons of thinning to increase resistance and resilience of trees and forest to global change by Moreau et al. (2022) stated, "At this point, our review reveals insufficient evidence from rigorous experiment to draw general conclusions."

To "manage an ecosystem" is indeed a lofty goal. The proposed project is rife with contradictions. For example, adding new roads, encouraging increased public access, thinning forests, and clearcutting to create gaps will certainly facilitate the spread of invasive plants. Trying to control invasive plants with the application of herbicides attempts to fix one problem but causes a host of others (see my recent letter regarding the invasive plant management plan for the Siuslaw National Forest). Thinning can create open canopies that can dry out surfaces and increase the risk of wildfires. Cutting down trees along streams will reduce the amount of shade they currently provide, which will affect fish populations. And so on[hellip]

I urge you to reconsider the commercial thinning harvest planned in order to fund restoration activities. The costs significantly outweigh the benefits. Thank you for your consideration.

Sincerely,

Ursula Bechert, DVM, PhD