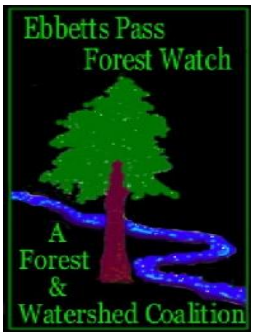

Sent via electronic mail on date shown to:PublicComments@BOF.ca.gov

August 16th, 2019

California Board of Forestry and Fire Protection
Attn: Eric Hedge
Regulations Program Manager
P.O. Box 944246
Sacramento, CA 94244-2460

RE: Battle Creek Alliance and Ebbetts Pass Forest Watch Comments—45-Day Notice of Proposed Rulemaking: "Stocking and Silvicultural Standards Amendments, 2019"

Dear Mr. Hedge and California Board of Forestry and Fire Protection:

The following comments are presented on behalf of Battle Creek Alliance (BCA) and Ebbetts Pass Forest Watch (EPFW), regarding the 45-Day Notice of Proposed Rulemaking entitled, "Stocking and Silvicultural Standards Amendments, 2019."

Summary

The Draft Rule Text proposes changes and additions to the Forest Practice Rules regarding the stocking standards to be met post-logging. It proposes to modify the point-count requirements by reducing the number of trees planted post-logging, based on the Forest District and site class; further, it presents a methodology to count trees. In themselves, these proposals are not unreasonable. Unfortunately, there are many associated impacts which have been overlooked in the proposal.

Of main concern is the fact there is nothing in the proposed changes that requires any kind of deliverables to ascertain what effects the rule changes have on the forested landscapes of the State. Without both short- and long- term monitoring, analyses, and reports the effectiveness of the rule changes can never be judged and any needed modifications to adapt to changing conditions will not be undertaken.

We recommend that the Board requires annual reports from Cal Fire that will track the use of the new standards by both industrial and non-industrial timberland owners. Evaluations over longer time periods (e.g. 5 years, 10 years) will need to be required also to measure whether stocking at a different level is actually improving forest health and carbon sequestration.

Specifically

Fire Risk and Severity Under the heading of "purpose" of the proposed action on page 5 of the Notice of Proposed Action one of the bulleted points states: "It is important to reduce the densities of smaller diameter trees, as they can be associated with high severity, large-scale fires that result in the vast majority of carbon storage loss and greenhouse gas emissions on forested land." The irony of this statement is that from 1998 to 2018, Cal Fire has approved 8,986 logging plans which cover over 3 million acres (Cal Fire FPGIS 2018). These plans have supplanted grown, diverse forests with a high-density of small diameter trees, otherwise known as tree plantations (Figure 1). The 3 million acre figure does not include the additional acres of logged land that have been cut under emergency exemptions, e.g. post-fire salvage logging. There is nothing in the Proposed Action or citations which disclose or address this aspect, nor do the current and proposed rules reflect that culpability for the problem. We suggest that the Board act on rules that repair these significant issues.

Figure 1. A plantation in 2019 in Shasta County, planted in 1993.

The 2018 Zald and Dunn study regarding fire severity in plantations was published in *Ecological Applications* and entitled: "Severe fire weather and intensive forest management increase fire severity in a multi-ownership landscape". The authors of the study write:

"Our findings suggest intensive plantation forestry characterized by young forests and spatially homogenized fuels, rather than pre-fire biomass, were significant drivers of wildfire severity."

Additional conclusions from this study include:
"Developing and prioritizing landscape fire management activities …across jurisdictional and ownership boundaries **requires landscape-scale assessments of the factors driving fire severity…**" (emphasis added)… "This is particularly important in landscapes that include intensive plantation forestry, a common and rapidly expanding component of forest landscapes at regional, national and global scales...

After accounting for fire weather, topography, stand age, and pre-fire biomass, intensively managed private industrial forests burned at higher severity than older federal forests managed by the BLM… [We] argue that younger forests with spatially homogenized continuous fuel arrangements, rather than absolute biomass, was a significant driver of wildfire severity…

Fire severity was consistently higher on private lands across a range of fire weather conditions for the days of active fire weather spread…, leading us to conclude that while fire weather exerted top-down control on fire severity, local forest conditions that differed between ownerships remained important, even during extreme fire weather conditions.

Variation in pre-fire forest conditions across ownerships were clearly a significant driver of fire severity, and we believe they operated at multiple spatial scales. Private industrial forests were dominated by young trees, which have thinner bark and lower crown heights, both factors known to increase fire-induced tree mortality..."

- Herbicides There is nothing in the proposed changes that evaluates the potential for increased use of herbicides by timberland owners. Our experience of land that has been logged and replanted is that many invasive weeds inhabit the sites for many years post-logging at the current point-count in the FPRs. It is reasonable to suppose that at a lower point-count, there will be an increase in both invasive weeds and the native brush species (which are important for habitat) that industrial timberland owners prefer to kill with chemicals. (Figure 2.) Higher herbicide use activates a slew of associated impacts on soil, water, fire danger, and the community health of people, animals, and plants. These rule changes must address those potential impacts also, and include measurements in annual reports to track if herbicide use is increased due to these rule changes.

Figure 2. Herbicide usage in a plantation in Plumas County. The dead understory species have been sprayed.

- Biodiversity The proposed rule changes do nothing to encourage or emphasize the importance of diversity of species and structure in forests. Both the present and proposed stocking standards ignore this important aspect of forest health. Gough et al. (2019) states "Forests that were more structurally complex, had higher vegetation area indices, or were more diverse absorbed more light and used light more efficiently to power biomass production, but these relationships were most strongly tied to structural complexity."

In May 2019, the United Nations' Intergovernmental Panel Science-Policy Platform on Biodiversity and Ecosystem Services released the preliminary summary of its 2019 report. It speaks broadly of the very concerns we have regarding the loss of biodiversity in California's forests, which the FPRs are failing to address.

As reported online:

"Planet Earth has been put on red alert by hundreds of leading scientists who have warned that humanity faces an existential threat within decades if the steep decline of nature is not reversed.

The conclusions of the greatest-ever stock-taking of the living world, published on Monday, show that ecosystems and wild populations are shrinking, deteriorating or vanishing completely, and up to 1 million species of land and marine life could be made extinct by humans' actions if present trends continue.

Food, pollination, clean water and a stable climate all depend on a thriving plant and animal population. But forests and wetlands are being erased worldwide and oceans are under growing stress, says the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the United Nations' expert nature panel, in the landmark global assessment report. The three-year study, compiled by nearly 500 scientists, analyzed around 15,000 academic studies that focused on everything from plankton and fish to bees, coral, forests, frogs and insects, as well as drawing on indigenous knowledge."
https://www.huffpost.com/entry/biodiversity-report-ipbes-nature-crisis_n_5ccee4e1e4b0e4d757341215

Some specific examples from the report:

"Pg 7. Section D

Societal goals – including those for food, water, energy, health and the achievement of human well-being for all, mitigating and adapting to climate change and conserving and sustainably using nature – can be achieved in sustainable pathways through the rapid and improved deployment of existing policy instruments and new initiatives that more effectively enlist individual and collective action for transformative change. Since current structures often inhibit sustainable development and actually represent the indirect drivers of biodiversity loss, such fundamental, structural change is called for. By its very nature, transformative change can expect opposition from those with interests vested in the status quo, but such opposition can be overcome for the broader public good.

Pg 4. B1

For terrestrial and freshwater ecosystems, land-use change has had the largest relative negative impact on nature since 1970, followed by the direct exploitation, in particular overexploitation, of animals, plants and other organisms mainly via harvesting, logging, hunting and fishing.

Pg 16. 11.
Land-use change is driven primarily by agriculture, forestry and urbanization, all of which are associated with air, water and soil pollution…

...Moving to logging, between 1990 and 2015 clearing and wood harvest contributed to a total reduction of 290 million hectares in native forest cover, while the area of planted forests grew by 110 million hectares {2.1.11}."

We recommend that the BOF addresses biodiversity in its rule changes, rather than ignoring the ongoing cumulative impacts to forests that have been allowed under the current rules. (Figures 3 and 4.)

Figure 3. A Shasta County plantation. Note the lack of species diversity and structural diversity.

Figure 4. A plantation in Butte County, before the 2008 Butte Fire and the 2018 Camp Fire.

Sincerely,

Marily Woodhouse, Battle Creek Alliance & Defiance Canyon Raptor Rescue

Susan Robinson, Ebbetts Pass Forest Watch

References

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