



PACIFIC FOREST TRUST

Private Forests. Public Treasures.

California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

June 21, 2017

Re: Draft Report, Safeguarding California Plan: 2017 Update

Dear Climate Team,

Thank you for this opportunity to comment on the Draft Report of the Safeguarding California Plan: 2017 Update (Safeguarding) and your hard work helping California adapt to climate change today and in the years to come. This plan represents a rare opportunity to holistically address climate change adaptation efforts across different departments and agencies. To achieve more synergies and efficiencies through an integrated approach to Safeguarding and to better recognize that natural and working lands are essential for climate change adaptation, we suggest that:

- 1) The overarching goal for natural and working lands should be reframed to recognize their critical role in climate change adaptation.
- 2) The forests chapter should focus on restoring a full range of ecosystem processes and functions for climate change adaptation beyond fuels reduction.
- 3) The biodiversity and forests chapters should be better integrated as biodiversity goals cannot be achieved without forests.
- 4) The Safeguarding plan should be well integrated with other state plans, especially the Scoping Plan Update, Water Action Plan, the Forest Carbon Plan, and any regional implementation that flows from these plans.

The overarching goal for natural and working lands should be reframed to recognize their critical role in climate change adaptation.

The overarching goal for natural systems is currently that they will “adjust and function in the midst of climate change” (page 1). This is not enough. These natural systems are a central part of the solution to climate change adaptation. We suggest reframing this overarching goal to be: “Natural and working lands are protected and restored so that these lands can continue to provide essential ecological services for people and wildlife.” California cannot adapt to climate change without working with nature. Wetlands will protect coastlines from rising sea levels, healthy forested watersheds will supply our cities with clean water, and natural and working lands will provide refugia to wildlife migrating in response to climate change.

The forests chapter should focus on restoring a full range of ecosystem processes and functions for climate change adaptation beyond fuels reduction.

The relatively narrow focus on fire and fuels reduction in the current draft of the forests chapter misses the larger picture of how forests and other natural lands are absolutely essential to helping the state adapt to climate change. Healthy, resilient forests also provide wildlife habitat and water filtration and storage that help California adapt to climate change. However, the currently degraded state of California's forests means that they fall short of providing the full range of water retention and storage that could help the state adapt to the extreme floods and droughts that are becoming increasingly likely with climate change. Fragmented and degraded forests also provide less habitat for wildlife and make it more challenging for those that are migrating in response to climate change. We recommend that the forest chapter is revised to reflect the synergies between goals for forests, biodiversity, and water.

The forests chapter currently focuses on *reducing fire risk* without acknowledging the past century of fire suppression has created a "fire deficit".ⁱ Approximately four-and-a-half million acres burned annually in California prior to European settlement.ⁱⁱ While these historic forests burned more frequently, they also stored at least 25% more carbon than modern fire-suppressed forests because of the presence of larger, older trees.ⁱⁱⁱ There is a need to restore low and mixed severity fire as a core ecological process to many of California's forests, which will increase their resilience to disturbance. More regular stand-maintaining fires also help reduce the smoke impacts from high-severity fires and in the case of prescribed fires, allow for more control over the timing and severity of burns.^{iv} Restoring fire and retaining older, larger trees is critical to the ecological health of forests and to meeting the state's ambitious targets for greenhouse gas emission reductions.

Instead of simply fuels reduction, we need to prioritize the proactive restoration and conservation of large, relatively intact forest landscapes that provide core ecosystem services for climate change adaptation. Safeguarding should identify changes in management necessary to bring back missing elements of the landscape, including larger older trees, wet and dry meadows, and an appropriate component of early seral conditions important to wildlife. Because restoring and maintaining these elements is a long-term commitment, we need long-term or permanent agreements to ensure that future management is compatible with our climate adaptation and resilience goals. Conservation easements that include terms guiding future management are one important tool that can guide ecosystem recovery over long periods of time, while providing an opportunity for partnerships between the public and the landowner to help finance the changes in management.

Restoring ecological function and processes will also involve restoration activities that encourage diversity at multiple scales, such as by: retaining snags and other dead wood, implementing uneven-age management, reforesting with diverse native species at appropriate stocking levels, and fostering landscape-scale heterogeneity

of natural habitats. In the biodiversity chapter, restoration is defined as “activities to re-establish critical ecosystem functions” (page 80). We recommend that a similar definition of restoration is used in the forests chapter.

Following from this revised structure, we also suggest revising some of the metrics to focus more on the proactive opportunities to achieve desired ecological conditions as follows:

Current Metric	Revised Metric
“10-year average of acres burned” (page 163)	The deviation of current average fire frequency and severity from historic fire regimes (this should be displayed spatially as fire return intervals vary across the state).
“Acres of forested land treated to reduce fire risk” (page 170)	Annual efforts to proactively restore fire to the landscape through prescribed burns or managed natural ignitions
<i>There is no current metric to reflect the need to restore forest processes for climate change adaptation</i>	Acres of forestland (at least 10% canopy cover) where there is a legally binding commitment to permanently restore and maintain ecological processes and functions. These lands should be managed for wildlife, water, older more resilient trees, and other climate change adaptation goals.
“Acres of terrestrial and aquatic habitat restored through state agency-administered restoration grant programs and restoration on state lands” (page 169)	Acres of terrestrial and aquatic habitat restored through state agency-administered restoration grant programs and restoration on all lands
“Reduction of rate consumed for development” (page 166) <i>and</i> “Acres of farmland conserved through state agricultural conservation easement programs” (page 169) <i>and</i> “Acres of private forests in easements” (page 170)	Acres of proactive protection and enhancement of natural and working lands through conservation easements or fee title. Detail should be included about both land type and the percentage of these easements that require improved management for climate change mitigation and/or adaptation

The biodiversity and forests chapters should be better integrated as biodiversity goals cannot be achieved without forests.

The biodiversity chapter sets forth worthwhile goals for climate change adaptation such as to enhance habitat connectivity and protect climate refugia. These important goals are largely missing from the forests chapter. Yet, forests provide habitat for over half the world's terrestrial plants and animals^v and cover a third of the state. The goals for biodiversity will not be achieved without forests. Increasing habitat connectivity, protecting and restoring critical large, relatively intact forest landscapes, and restoring a full range of ecosystem processes and functions will all be essential in helping wildlife adapt to climate change. We suggest rewriting the forest chapter with input from the Department of Fish and Wildlife and others to fully integrate biodiversity into the forests chapter.

The Safeguarding plan should be well integrated with other state plans, especially the Scoping Plan Update, Water Action Plan, the Forest Carbon Plan, and any regional implementation that flows from these plans.

Activities that achieve both climate change adaptation and mitigation goals should be prioritized throughout state strategies. Especially on natural and working lands, there are numerous opportunities for synergies between climate change adaptation and mitigation goals. For instance, a conservation easement can protect the land from conversion – preventing the carbon stores from being emitted – and incentivize changes in management that increase carbon stores, improve wildlife habitat, and secure water supplies. We recommend that Safeguarding prioritize actions that also achieve state goals for carbon, water, and wildlife.

Conclusion

Thank you for considering these initial comments about how Safeguarding might achieve greater results by highlighting the essential role of natural systems, further integrating the different chapters, and prioritizing activities that achieve multiple benefits for both climate change adaptation and mitigation. We look forward to further discussion.

Sincerely,



Laurie Wayburn
President



Paul Mason
V.P. Policy



Abby Halperin
Policy Associate

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- ⁱ Marlon, J.R., Bartlein, P.J., Gavin, D.G., Long, C.J., Anderson, R.S., Briles, C.E., Brown, K.J., Colombaroli, D., Hallett, D.J., Power, M.J., Scharf, E.A., Walsh, M.K., 2012. Long-term perspective on wildfires in the western USA. *PNAS* 109, E535–E543. doi:10.1073/pnas.1112839109
- ⁱⁱ Stephens, S.L., Martin, R.E., Clinton, N.E., 2007. Prehistoric fire area and emissions from California's forests, woodlands, shrublands, and grasslands. *Forest Ecology and Management* 251, 205–216. doi:10.1016/j.foreco.2007.06.005
- ⁱⁱⁱ North, M., M. Hurteau, and J. Innes. 2009. Fire suppression and fuels treatment effects on mixed-conifer carbon stocks and emissions. *Ecological Applications* 19: 1385-1396.
- ^{iv} Long, J.W., Tarnay, L.W. and North, M.P., 2017. Aligning Smoke Management with Ecological and Public Health Goals. *Journal of Forestry* 115.
- ^v Shvidenko A.; Barber C.V.; Persson R.; et al. (2005). [Millennium Ecosystem Assessment. Current State & Trends Assessment. Chapter 21. Forest and Woodland Systems](#) (PDF). pp. 585–621.