Southern Oregon Climate Action Now

SOCAN

Confronting Climate Change

https://socan.eco

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September 7th 2021

Chair Kelly & Members of the Oregon Board of Forestry

I write on behalf of the 1500 rural Oregonians who are Southern Oregon Climate Action Now (SOCAN) with comments on the draft Climate Change and Carbon Plan. SOCAN's mission is to promote understanding about climate science and to motivate individual and collective action to address global warming and its climate change consequences. How ODF adjusts its forest management following the issuance of Governor Brown's Executive Order 20-04 falls very much within our zone of interest. As SOCAN co-facilitator, I have consistently engaged with DEQ in the development of their draft Climate Protection Plan and will offer a substantial thought below (p. 6) regarding carbon offsets based on that experience.

My overall assessment of the proposed plan is favorable, but with several caveats as indicated below.

*Climate Smart Forestry:*

It is extremely encouraging to see repeated reference throughout the plan to climate smart forestry since climate smart management of all our natural resources must be the model for future natural resources management not only by our federal and state agencies, but also by private resource owners. However, I am somewhat concerned that the climate smart model selected to follow may not be the best example. Employing a model from Europe that assumes harvest products seems strange when we have a model available from the National Wildlife Federation (Stein et al. 2014, https://www.nwf.org/~/media/PDFs/Global-Warming/2014/Climate-Smart-Conservation-Final_06-06-2014.pdf ) that has been applied to U.S. National Forests (for a brief summary, see the attached documents prepared by Charisse Sydoriak). In the repeated reference to climate smart forestry, the plan seems to fluctuate between assuming that ODF already engages in climate smart forestry, and acknowledging that forest managers will need to be educated and incentivized to implement that approach.

In the discussion of Barriers (p 9) it appears that the basic principles of climate smart forestry are not fully understood. This is apparent in this statement (p.9/10): "Natural barriers to moving to climate-smart forestry include a rapidly changing climate and events causing tree

and forest damage and mortality at a speed and magnitude that exceeds management and forests' ability to adapt." This statement is disturbing since the entire basis for, and purpose of, climate smart management is to adapt to a changing climate. Rather than constituting a barrier to employing climate smart forestry, this comprises exactly the reason for it.

Then, in the Table (p. 11) the resolution to addressing the problem of Public perceptions is stated as "Provide transparent processes and increase engagement opportunities." Surely the way to overcome the problem of Public perceptions is to address those perceptions with a program of education regarding forests, climate change, and the need for climate smart management.

Then, again, surely one response to the barrier of "Pressures to produce revenue (internally and externally; county payments) would be for ODF to acknowledge the merit of a Severance Tax, funds from which could be used to restore county payments.

It was encouraging to see (p. 15) that under Agency Leadership: "Department leadership will prioritize climate change in their planning to align with Executive Order 20-04." While this is very encouraging, the ongoing emphasis on promoting timber harvest suggests that ODF has not yet acknowledged the urgency of addressing the impact of climate change on our forests, nor the urgency of addressing role that our forests should be playing to minimize that problem.

It was particularly encouraging to see this statement (p. 15) on Agency Decisions:

*To the full extent allowed by law, agencies shall consider and integrate climate change, climate change impacts, and the state's GHG emissions reduction goals into their planning, budgets, investments, and policy making decisions. While carrying out that directive, agencies are directed to:*
*(1) Prioritize actions that reduce GHG emissions in a cost-effective manner;*
*(2) Prioritize actions that will help vulnerable populations and impacted communities adapt to climate change impacts; and*
*(3) Consult with the Environmental Justice Task Force when evaluating climate change mitigation and adaptation priorities and actions.*

This suggests a real effort on the part of ODF to incorporate climate change into its planning, and to strengthen efforts to address environmental injustices that have existed for decades.

My concern about the acceptance of Climate Smart principles is exemplified in the statement on p 17 regarding Climate Smart Forestry in Silviculture:

*Goal: Establish a just and equitable transition to climate-informed silviculture and climate-smart forestry that optimizes climate mitigation and adaptation, while maintaining a sustainable flow of wood products to ensure long-term resource benefits and viability of the forest products industry and flow of long-lived forest products.*

Unfortunately, the proposal seems to be taking Climate Smart principles and shoe-horn into them the demands of the timber industry. This may be a function of a preconceived notion on

the part of ODF as to what constitutes Climate Smart management, the search for a definition or model that includes timber harvest, or some combination. However, if our goal is genuine climate smart forestry according to the principles articulated in Stein et al. (2014), they should comprise: ""the intentional and deliberate consideration of climate change in natural resource management, realized through adopting forward-looking goals and explicitly linking strategies to key climate impacts and vulnerabilities" Note that this does not include any mention of timber harvest. The implication of the discussion of climate smart principles by Stein *et al* (2014) would lead to timber harvest not being so much a goal of the management as a by-product of management that is consistent with the climate smart framework. This is not to suggest that timber harvest should be abandoned since there is substantial evidence that genuinely sustainably managed timber products are superior to other materials for construction. Rather, the point of this comment is to recognize the difficulty, if not impossibility, of managing concurrently for two potentially mutually exclusive (or at least conflicting) goals.

*The Restoration Conundrum*

It is notable that the plan states (p. 19):
"Natural resource agencies and stakeholders working together to increase forest resiliency through **restoration** and resilience activities like thinning and prescribed fire will be essential to adapt and maintain functioning forest ecosystems in a changing fire environment."

"While there may not be any way to address this issue [smoke] directly during a wildfire, the Department should continue working with local and sibling agencies (e.g., Oregon Health Authority) to establish ways for these impacted populations to avoid smoke impacts as well as research and monitoring to assess other resource and health effects. Additional **restoration** burning will produce varying levels of smoke."

In the same context of climate smart forestry, this exemplifies the frequent reference to forest restoration though it is unclear what this means. The reason that such a concept is fraught with hazard is that a basic premise of climate smart management is that future climatic conditions will be so unlike historic conditions that attempts to return to some historic composition is untenable. If the concept of 'restoration' refers to ecosystem composition, which is often its meaning, then this should be recognized as implausible as a goal. If, on the other hand, restoration refers to ecosystem function, then such a meaning should be clarified in the text.

I find laudable the statement of a State Forests Management Goal (p. 20) to:
*Lead by example and demonstrate climate-smart forest management on State Forests to achieve adaptation, mitigation, and the achievement of forest resource goals.*

However, this is of course tinged with the caveat regarding whether climate smart principles are really understood.

The reported statement of Greatest Permanent Value (p 20) is troubling:

“As provided in ORS 530.050 (Management of lands acquired), “greatest permanent value” means healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits to the people of Oregon. These benefits include, but are not limited to:

(a)Sustainable and predictable production of forest products that generate revenues for the benefit of the state, counties, and local taxing districts;
(b)Properly functioning aquatic habitats for salmonids, and other native fish and aquatic life;
(c)Habitats for native wildlife;
(d)Productive soil, and clean air and water;
(e)Protection against floods and erosion; and
(f)Recreation.”

This is because it offers no room for management in the face of climate change. This statement should be accompanied by a recommendation to add enhancing carbon sequestration and limiting greenhouse gas emissions as among the Greatest Permanent Values.

Also laudable is the subsequent statement:

“The Department will lead by example and demonstrate climate-smart forest management on State Forests to achieve Greatest Permanent Value. This concept will be incorporated into the revision of the Western Oregon State Forests Management Plan (FMP), which “will be implemented to adapt to climate change and mitigate its impacts on the management of state forest lands.”

There is an example (p. 21) of the repeated reference to ‘‘thinning’ the forest to mitigate fire risk. The term ‘thinning’ raises an alert in the minds of many who are aware of a history wherein this has been used as justification (or cover) for logging operations. It would be helpful for ODF to define this process in such a way that the meaning is explicit. If this includes commercial timber harvest, I suggest identifying so; but if the focus is removal of small diameter non-commercial understory shrubs and trees, this should be clearly stated.

The following statement (p.23) are similarly laudable:

Urban and Community Forests

*GOAL: Increase the extent and resilience of urban and community forests to maximize the climate mitigation and health benefits of urban forests canopy.*

Reforestation and Afforestation

*Goal: Facilitate and encourage the reforestation of areas burned by wildfire and afforestation of low-productivity lands that are understocked or not in forest use*.

I offer kudos for recognizing (p. 24):

"There may be instances where the most current knowledge of plant communities and climate envelopes indicate that there should be alternative management on affected lands. This may include the use of alternative, non-traditional tree species, alternative seed sources, or a shift from traditional forest management to a long-term ecologically-sustainable ecosystem."

However, it is worth noting that my understanding of climate smart principles is that this is exactly what they represent. This again raises a question about what is meant throughout the plan by 'climate smart forestry' that doesn't encompass this principle.

A question is raised by the suggestion (p. 25) in relation to Maintain and Conserve Forests

*Goal: Support a strong, but flexible, Land Use Planning System as a cornerstone of maintaining Oregon's forests on private lands.*

Since it is now a priority sequester carbon in our natural and working lands, this item probably deserves incorporation into the Forest Management Practices laws..

Meanwhile, since monitoring and reassessing are critical components of climate smart forestry the following constitutes an excellent recommendation (though it should be understood as already existing within the framework of climate smart management:

Research and Monitoring
*Goal: Maintain a research and monitoring program to track the status and trends of ecological, economic, and social indicators and the effects of climate change and to track progress related to this plan.*

In relation to the question (p.26):
To what extent will forest ecosystems change in response to rising atmospheric $CO_2$?

It's worth noting that Gerry Rehfeldt formerly with the Forestry Research Station in Idaho has developed projections for the future distribution of wester tree species under various scenarios based on their historic climate envelopes: http://charcoal.cnre.vt.edu/climate/species/, so information is already available to address this to some extent.

The statements on p 29 are excellent:

Integrate Climate Change in FPA Rule Revision Processes:

Climate-Smart Forestry Incentives on Private Forestlands:

The only caveat, again, is that the climate smart principles being employed are appropriate (see attached and referenced materials).

The suggestion to incorporate climate change considerations into the forest management plan (p.30) and identify and operationalize carbon storage in harvest operations are both excellent as is the concept of internalizing carbon pricing in decision-making and promoting ecological function (p.31)

I offer a concern under Afforestation of Low Productivity Lands (p. 33) regarding the concept of genetically improved trees. While we know that selective breeding is a tactic employed in agriculture, forestry and fisheries, beware the concept does not become mingled with that of artificially modified organisms through gene insertion, GMO techniques.

In relation to the discussion of **offsets** undertaken on p. 35 it is essential to appreciate that in the development of its Community Climate Investment funding opportunity, DEQ has specifically excluded carbon sequestration projects. If ODF wishes to discuss this issue with DEQ, the first request would be to reinstall carbon sequestration as an option. This was present during earlier iterations of the Community Climate Investment fund but was deleted at the last minute without explanation despite opposition from many (including this witness).

It was with some relief that I finally encountered reference (p. 37) to the need to account for forestry-related impacts and assess emissions from forest harvest and (p. 38) Incorporation of Climate Change and Climate Change Impact in Agency Planning Processes.

I was also delighted finally to see (p 40/41) the suggestion to include Diversity, Inclusion and Equity (DEI) in both short and long-term planning

I offer a final note about: *Carbon Sequestration in Wood products.*

There occurs repeated reference to the sequestration of carbon in forest products as though this comprises a substantial contribution by the timber industry to the state's carbon balance. While it may well amount to a seemingly large absolute number, the question really should be: what percentage of the carbon flux is in those products. On a national level, the Congressional Research Service Forest Carbon Primer (2020) (https://sgp.fas.org/crs/misc/R46312.pdf, Table 3) reported, for example, that for 2019, among our national forest's carbon stocks of 58.72 billion tons, only 5% was contained in harvested wood products, with only 3% in use and 2% in the disposal stream. Meanwhile 95% existed within the forest ecosystem, with 54% in the soil. Meanwhile, reports from several years ago on the net percentage of carbon surviving from a harvested tree in the final timber product amounts merely to some 15%. (https://www.nrs.fs.fed.us/pubs/gtr/ne_gtr343.pdf and https://www.nrcm.org/wp-content/uploads/2013/10/TWS_US-Forest-Carbon-and-Climate-Change_2007.pdf. Given that the Carbon Primer data above indicate over 50% of the C is in the soil with 16% scattered among below ground biomass, deadwood, and litter, this brings the 15% value down close to the 3% reported nationally. In other words, the carbon stored in timber products is a very small percentage of the carbon in the forest ecosystem While the ODF report on harvested wood product carbon (https://www.oregon.gov/odf/Documents/forestbenefits/oregon-harvested-wood-products-carbon-inventory-report-1906-2018.pdf) identified the carbon stocks in Timber Product Output, I did not see what percentage of the total harvest or total ecosystem carbon that value represented. In addition to the small percentage of forest carbon that is represented in the harvested products, it is also important to recall that harvesting trees compromises completely the capacity of those trees to sequester further carbon. While plantations certainly

will sequester carbon, as Lewis *et al.* 2019 (https://media.nature.com/original/magazine-assets/d41586-019-01026-8/d41586-019-01026-8.pdf) argue: "…natural forests are 6 times better than agroforestry and 40 times better than plantations at storing carbon…."

Thank you for this contribution to increasing the sensitivity in our forest management to the climate crisis. As always, I am happy to discuss these issues with you.

Respectfully submitted

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