



December 16th, 2016

Colin McConnaha
Oregon Department of Environmental Quality
811 SW 6th Ave. Portland Oregon 97204

RE: DRAFT: Considerations for Designing a Cap-and-Trade Program in Oregon

Dear Mr. McConnaha,

Thank you for this chance to comment on the *Draft Considerations for Designing a Cap-and-Trade Program in Oregon* (draft). We are supportive of Oregon adopting a cap-and-trade program as part of the WCI and are grateful for the work that has been done so far to further this goal.

We urge you to consider the opportunities to more fully integrate natural and working lands into this cap-and-trade system as they could be either an asset or liability in achieving Oregon's climate goals. The natural lands lost every year to development have a significant climate impact. Yet, there is also the potential to increase carbon stored in Oregon's forests through conservation and improved forest management. As natural and working lands largely fall outside of the proposed cap, it is crucial to include provisions such as the reinvestment of auction revenues and forest offsets. This investment in forests and other natural lands will pay off not only in climate change mitigation, but also in sustained rural communities, wildlife adaptation to climate change, secure water supplies, and the many other benefits well-managed forests provide.

Natural and Working Lands are Central to Oregon's Climate Goals.

The Oregon Department of Forestry estimates that 704,000 acres of non-federal natural and working lands were lost to development from 1974-2014.¹ Just the wildland forest lost, 284,000 acres over that time period, generated around 96 MMTCO₂ (using an average of 93 metric tons of carbon^{2,3}, or 341 metric tons of CO₂, per acre of forest land). That works out to an annual emission of about 2.4 MMTCO₂ from the loss of wildland forests alone, which is not insignificant when you consider that the total inventoried emissions for the state were 102.9 MMTCO₂ in 2010.⁴

¹ Gray, Andrew N.; Hubner, Dan; Lettman, Gary J.; McKay, Neil; Thompson, Joel L. 2016. Forests, farms & people: Land use change on non-federal land in Oregon 1974-2014. Available at: <http://ir.library.oregonstate.edu/xmlui/handle/1957/58941>

² Wayburn, L.A., Franklin, J.F., Gordon, J.C., Binkley, C.S., Mladenoff, D.J., and Christensen, N.L. 2000. Forest Carbon in the United States: Opportunities & Options for Private Lands. The Pacific Forest Trust, San Francisco, CA. Available at: <https://www.pacificforest.org/forest-carbon-in-the-united-states/>

³ USDA. 2010. New Data Highlights Role of Forests in Fight Against Climate Change. Available at: <http://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2010/10/0532.xml>

⁴ http://www.oregon.gov/deq/AQ/Documents/OregonGHGInventory07_17_13FINAL.pdf

While the loss of forests and other natural and working lands poses a challenge to meeting Oregon's climate goals, these lands are also some of the safest and most expandable carbon sinks. Forests nationwide are estimated to offset 11% of the US's greenhouse gas emissions, and the forests of the Pacific Northwest have the highest carbon storage potential in the nation.⁵ Oregon also has the most carbon stored in forests of any of the contiguous states, with 2,555 MMTC.⁶ Safeguarding and increasing this vast carbon store could be one of Oregon's more valuable assets in the fight against climate change.

Forest Carbon Offsets Can Reduce Land Conversion and the Costs of Compliance.

Offsets, as the draft study notes, "offer an opportunity to spread the incentive for emission reductions to sources not directly covered by the cap-and-trade program." They provide an opportunity to include forests and natural lands while reducing the cost of compliance for covered entities. A recent study indicated that an offset price of just \$10/ton had the potential to stabilize regional carbon stocks in western Oregon.⁷ The model predicts that for each \$1 increase in the offset price, an additional 4,700 acres of forest land could be protected from conversion to development.⁸ The forest carbon offset program represents an opportunity to curb land conversion and provide incentives for improved forest management practices that increase carbon stores.

Forest carbon offsets have already been accepted by many of Oregon's landowners. For instance, Green Diamond has recently listed over 600,000 acres of Oregon forest⁹ in California's forest offset program, which may be the largest forest carbon offset project registered in California to date. Including forest offsets in Oregon's cap-and-trade program would help expand this successful program and increase its reach to more landowners.

The draft study notes that careful consideration is required to ensure that offsets actually achieve the reductions. California's model for ensuring offsets are real, additional, quantifiable, permanent, verifiable and enforceable is one that could be easily replicated. For instance, forest carbon offset providers in California must contribute a percentage of offset credits to a buffer account that provides insurance in the case of unintentional

⁵ USDA. 2010. New Data Highlights Role of Forests in Fight Against Climate Change. Available at: <http://www.usda.gov/wps/portal/usda/usdamediafb?contentid=2010/10/0532.xml>

⁶ USDA Forest Service, Forest Inventory and Analysis Program. 2014. Available at: <http://www.fia.fs.fed.us/Forest%20Carbon/methods/docs/2014/Total%20forest%20carbon20140721.xlsx>

⁷ Latta, Gregory S.; Adams, Darius M.; Bell, Kathleen P.; Kline, Jeffrey D. 2016. Evaluating land-use and private forest management responses to a potential forest carbon offset sales program in western Oregon (USA). *Forest Policy and Economics*. 65: 1-8.

⁸ Latta, Gregory S.; Adams, Darius M.; Bell, Kathleen P.; Kline, Jeffrey D. 2016. Evaluating land-use and private forest management responses to a potential forest carbon offset sales program in western Oregon (USA). *Forest Policy and Economics*. 65: 1-8.

⁹ Green Diamond has two projects listed in Oregon with the American Carbon Registry: "Klamath IFM East" at 450,000 acres (<https://acr2.apx.com/mymodule/reg/prjView.asp?id1=273>) and "Klamath IFM West" at 185,000 acres (<https://acr2.apx.com/mymodule/reg/prjView.asp?id1=274>).

reversals such as fire.¹⁰ While the draft also notes that offsets sometimes require ongoing monitoring for years or decades – this should not be viewed as a downside as this monitoring ensures the permanence of the emissions reduction and the many other benefits of forest offset projects. As demonstrated by the forest carbon projects in 30 states and on over 2 million acres of land under California’s offset program¹¹, this ongoing monitoring is not prohibitive.

Reinvestment of Revenues in Natural and Working Lands Has Many Benefits.

The draft study lists five broad categories for the reinvestment of auction revenues. We would recommend that the available funds are primarily used to achieve additional greenhouse gas reductions and to mitigate distributional impacts.

Reinvesting the auction proceeds in areas not covered by the cap can broaden the scope of the program and achieve additional, and cost effective, greenhouse gas reductions. For instance, a recent California Legislative Analysis Office report showed that investments in forests topped the list of cost-effective GGRF investments – costing only \$4 per metric ton of CO₂ reduced.¹² The auction revenues also provide the opportunity to complement the forest offset program and expand to other natural and working lands such as wetlands, meadows, grasslands, and deserts that might otherwise be entirely left out of the cap-and-trade program.

Investing some of the proceeds in rural areas can also help mitigate some of the distributional concerns. As the 19% of Oregon’s population that lives in rural areas¹³ are often dependent on the land base, investments in natural and working lands can benefit these rural communities. In 2013, Oregon’s forest sector, the state’s second-largest employer,¹⁴ employed more than 58,000 people and paid a higher wage than the statewide average.¹⁵ Research on investments made by the Oregon Watershed Enhancement Board found that for every million dollars invested in forestry and watershed restoration, between 15 and 24 jobs were created.¹⁶

The reinvestment in natural lands with auction revenues supports rural economies and helps reduce GHG emissions. It also provides countless other co-benefits from restoring habitats that help wildlife adapt to climate change to improving water security.

¹⁰ Air Resources Board, 2015. Compliance Offset Protocol U.S. Forest Projects, adopted June 25, 2015. Available at: <https://www.arb.ca.gov/cc/capandtrade/protocols/usforest/forestprotocol2015.pdf>

¹¹ Data on ARB registered projects available at: http://database.v-c-s.org/VCS_OPR, <http://www.arb.ca.gov/cc/capandtrade/offsets/offsets.htm>, and <https://acr2.apx.com/myModule/rpt/myrpt.asp?r=111>

¹² <http://www.lao.ca.gov/Publications/Report/3445>

¹³ <https://www.census.gov/geo/reference/ua/urban-rural-2010.html>

¹⁴ <https://www.oregon.gov/LCD/pages/forlandprot.aspx>

¹⁵ <https://www.qualityinfo.org/-/a-comprehensive-estimate-of-oregon-s-forest-sector-employment>

¹⁶ Nielsen-Pincus, Max and Moseley, Cassandra. 2010. Economic and Employment Impacts of Forest and Watershed Restoration in Oregon. *Ecosystem Workforce Program, Working Paper Number 24*. University of Oregon.

Taking the time now to consider how natural and working lands can be incorporated into Oregon's cap-and-trade program through offsets and auction revenues is essential. This inclusion will make Oregon's climate goals more feasible as it could help reduce land loss and increase carbon storage. It will also help support rural communities, aid wildlife adaptation to climate change, and improve water security.

Thank you for considering these comments, and please do not hesitate to reach out if you have any questions or we can help in any way.

Sincerely,

A handwritten signature in black ink, appearing to read 'Abby Halperin', with a stylized flourish at the end.

Abby Halperin
Policy Associate