

EXECUTIVE SUMMARY



The Intergovernmental Panel on Climate Change’s [Global Warming of 1.5°C Special Report](#) emphasized the urgency of climate action and the important role the land sector can and must play as part of a comprehensive climate change mitigation strategy. In Executive Order 20-04, Governor Brown directed the Oregon Global Warming Commission to work in coordination with the Oregon Department of Agriculture, Oregon Department of Forestry, and the Oregon Watershed Enhancement Board to develop and submit a proposal for setting a carbon sequestration and storage goal for Oregon’s natural and working lands.

Oregon’s natural and working lands — including forests, grasslands, rangelands, farmlands, tidal and subtidal wetlands, and the parks and open spaces in urban environments — provide a range of environmental, social, health, and economic benefits statewide including opportunities to increase carbon sequestration to reduce Oregon’s overall greenhouse gas emissions.

The Environmental Protection Agency (2020) reports that carbon sequestered in natural and working lands reduced total GHG emissions in the United States by 12 percent in 2019. Researchers estimate that the amount of carbon sequestered annually could be more than doubled by protecting and restoring natural habitats and modifying management practices on farms, forests, and rangelands ([Fargione et al 2018](#)).

Over the past year, the OGWC worked closely with the named partner agencies as well as the Departments of Environmental Quality and of Land Conservation and Development to engage Tribes, landowners and managers, federal and state agencies, conservation organizations, environmental justice leaders, technical assistance providers, and scientists to inform the level of ambition we should aspire to in recommending a goal for natural and working lands and the strategies the state should advance to reach that level of ambition. In total, we heard from more than 1,000 individuals and organizations. Input ranged from recommendations on the goal and specific strategies to general considerations for designing policy, practice, and investment frameworks.

Based on tribal and stakeholder input, research, and information provided by state and federal agencies, the OGWC recommends the state adopt the following outcome-based goals.

Outcome-Based Goal

Sequester at least an **additional 5 MMTCO₂e per year in Oregon’s natural and working lands and waters by 2030**, and at least **9.5 MMTCO₂e per year by 2050** relative to a 2010 to 2019 activity-based, business-as-usual net carbon sequestration baseline.¹ The OGWC recommends that the natural and working lands outcome-based goal should be separate from, and in addition to, Oregon’s sector-based emissions reduction goals as established by the Legislature and updated in Governor Brown’s EO 20-04.

If we are able to get back on track to meeting our 2035 and 2050 sector-based emission reduction goals and we achieve the sequestration goals proposed here, Oregon could be net neutral and fully contributing to

¹ For context, net carbon sequestered in the measured forest and the wood products pools, which dominate Oregon’s total annual net carbon sequestration and storage balance, was 21.7 MMTCO₂e/year between 2001 and 2016. Forest ecosystem carbon pools sequestered 30.5 MMTCO₂e/year while net emissions from the wood products pool (including sequestration of 8.4 MMTCO₂e in the Products in Use pool and emissions of 17.2 MMT CO₂e from the Solid Waste Disposal Sites) was 8.8 MMTCO₂e/year.

climate repair before 2040, positioning the state as the U.S. leader on climate mitigation.

In addition, we recommend the state establish:

Activity-Based Metrics

To achieve the outcome-based goal and support adoption of climate-smart management practices, significant investments will be needed in technical assistance, incentives, data and research, and policy development—including rules and regulations, when applicable and authority exists. Activity-based metrics (e.g., number of acres with adoption of soil health practices, acres of maintained resource lands, acres of riparian reforestation, and acres of urban forest canopy expansion) will help the state evaluate progress. Activity-based goals for programs designed to incentivize climate-smart management practices will help communities, technical assistance providers, and land managers anticipate the opportunity to adopt new practices.

Community Impact Metrics

Community impact metrics should be developed to inform and evaluate the co-benefits and impacts of natural and working lands strategies. Environmental justice considerations should be prioritized throughout carbon sequestration programs, in line with recommendations from Oregon's [Environmental Justice Task Force](#), the [Racial Justice Council](#) and Oregon's [Interagency Workgroup on Climate Impacts to Impacted Communities](#). The community impact metrics and goals should be designed to evaluate the benefits and burdens associated with different strategies, practices, and programs. These metrics should include effects on jobs, local economies, public health, and access to programs, among other factors.

The OGWC identified four broad strategies with ten supporting elements to achieve the ambitious outcome-based goals:

1. Position the state to leverage federal lands and investments in climate-smart natural and working lands practices.
2. Investigate options and create a sustained source of state funding to increase sequestration in natural and working lands.
3. Fund and direct the agencies to take actions to advance natural and working lands strategies.
4. Invest in improvements to Oregon's natural and working lands inventory.

Collectively the strategies we outlined, if sufficiently and effectively resourced, would go a long way toward reaching the natural and working lands ambition we recommend.

If carefully designed, strategies for increasing sequestration in Oregon's natural and working lands and waters will also provide multiple co-benefits from increased resilience, to improved air quality, better fish and wildlife habitat, jobs and economic development, and lower health and energy costs. While significant funding will be needed to achieve the goals, the financial savings from avoiding the worst impacts of climate change and the value of the goods and services associated with improved natural and working lands will far exceed those costs.

The complete 2021 Natural & Working Lands Proposal is available online:

<https://www.keeporegoncool.org/s/2021-OGWC-Natural-and-Working-Lands-Proposal.pdf>