

CLIMATE POLICY SOLUTIONS FOR OREGON'S PRIVATE FORESTS

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EXECUTIVE SUMMARY

Improving forest policy and practices on private lands in Oregon is one of the most significant actions the state can take to reduce its greenhouse gas emissions. The forest products sector is the single largest source of greenhouse gas emissions in Oregon, averaging 33 million metric tons of carbon dioxide annually since the year 2000.¹ Private forest management in Oregon is particularly carbon-intensive, as it currently favors extensive clearcutting and short harvest rotations, greatly diminishing forests' potential to capture and store carbon.^{2,3} However, "climate-smart" management practices could make our state's private forests a more significant net carbon sink, thus helping the state of Oregon support global efforts to mitigate climate change. This whitepaper offers management considerations for climate-smart forestry on private lands in Section II, followed by policy options to accelerate the adoption of climate-smart practices in Section III.

The management considerations for climate-smart forestry (Section II) are designed to drive carbon sequestration and storage while also providing locally tangible benefits like support for biodiversity, better water quality and quantity, improved fire resilience, and greater public health and economic equity. The policy options provided (Section III) include fees on industrial timber production with proceeds invested in climate-smart forestry, climate easements that reward landowners who practice climate-smart forestry, and the creation of community forest programs that offer tangible benefits to local communities while also sequestering and storing carbon.

Existing efforts to make climate-smart forestry the norm in Oregon range from market-based approaches, like reinstating the severance tax, to broader and arguably more ambitious proposals that would create mechanisms for local communities to purchase private forest lands and manage them for public benefits. This document solidifies the view that we should not limit climate solutions to any single approach, and that several coordinated policy approaches may in fact yield the best results.

¹ (Talberth, 2017)

² (Talberth, 2017)

³ (Turner et al., 2011)

I. INTRODUCTION	4
II. MANAGEMENT CONSIDERATIONS	5
III. POLICY OPTIONS	7
POLICY OPTION I: FEE-TO-INVESTMENT	7
POLICY OPTION II: CLIMATE EASEMENTS	9
POLICY OPTION III: COMMUNITY FORESTS	14
HYBRID MODELS COMBINING POLICY OPTIONS I-III	17
IV. RELATED INITIATIVES	17
V. REFERENCES	18

I. INTRODUCTION

The timber industry is a major source of carbon emissions in Oregon, but climate-smart management strategies can make our forests part of the solution to climate change. Since the adoption of the 1994 Northwest Forest Plan, federal public lands management has encouraged conservation and restoration of old-growth forests, and favored restoration-based thinning over traditional clearcutting. While not originally designed as a climate solution, management under the Northwest Forest Plan has produced significant carbon benefits.⁴ Private forests, on the other hand, have failed to provide the same benefits due to more intensive logging.^{5,6} Furthermore, many of the same forestry practices that contribute to carbon emissions also destroy habitat for fish and wildlife, pollute water,⁷ reduce summer streamflow,⁸ and make cities and towns more vulnerable to catastrophic wildfire,⁹ all while failing to create economic opportunity in nearby communities. Finally, Black communities, Indigenous communities, communities of color, and rural communities, who are most vulnerable to climate change impacts,^{10,11,12} are also disproportionately harmed by forestry, with the exploitation of migrant workers¹³ and pollution of rural watersheds¹⁴ as two examples.

Transitioning private forests to the climate-smart practices described in Section II will store and sequester carbon.¹⁵ The same practices will also benefit local communities and ecosystems by

- ⁷ (US EPA, 2020)
- ⁸ (Segura et al., 2020)
- ⁹ (Zald & Dunn, 2018)
- ¹⁰ (Islam & Winkel, 2017)
- ¹¹ (Gowda et al., 2018)
- ¹² (Gamble et al., 2016)
- ¹³ (Green, 2016)
- ¹⁴ (Schick, 2020)

⁴ (Turner et al., 2011)

⁵ (Turner et al., 2011)

⁶ (Law et al., 2018)

^{15 (}Law et al., 2018)

protecting water and habitat, reducing risk of catastrophic wildfire, and creating family-sustaining jobs. Current market structures and the politics that drive Oregon's forestry sector policies represent significant barriers to change in private timber management. Organizing around actionable, near-term climate solutions that can also achieve environmental justice priorities and create jobs in rural communities represents one of the best opportunities to modernize Oregon's forestry sector.

While new models for forest ownership and management can help Oregon, they are not a substitute for reforming the Oregon Forest Practices Act (OFPA). A revised and stronger OFPA could make the climate-smart practices described in Section II mandatory, but given the immediacy of the climate crisis, we need to consider a wide variety of options. The purpose of this document is to offer specific pathways towards climate-smart forestry on private lands in Oregon while integrating concerns of equity and ecology. The policy options proposed in Section III are illustrated with case studies that demonstrate their feasibility and offer lessons learned from previous work.

II. MANAGEMENT CONSIDERATIONS

A combination of the following practice changes will transform Oregon's private forests from carbon sources to carbon sinks, with tangible co-benefits to nature and society. References to "climate-smart forestry" in Section III and beyond refer to a combination of environmentally responsible timber production, non-timber forest management, and equity and justice priorities. Terms like "environmentally responsible" and "climate-smart" management are easily co-opted by industry, and need to be explicitly defined in communications in order to distinguish beneficial practices from false solutions. These terms should be defined based on the outcomes land managers wish to achieve, and should be focused around restoring ecological function to the landscape such as increased carbon sequestration, clean water, biodiversity, and soil stability.

Environmentally responsible timber production

The assumption of this whitepaper is that much of our state's private timberland will remain in production, and we need to ensure that timber production on private lands is optimized for climate, wildlife, water, and other environmental benefits. The best ways to increase carbon sequestration and storage and decrease greenhouse gas emissions from private forests managed for timber in Oregon are to increase harvest rotation cycles to at least 80 years, expand riparian buffers or 'riparian management zones' (RMZs), and leave more green trees standing during harvest.^{16,17} The same practices also offer concurrent benefits to society and ecosystems that are more immediately tangible and may be more viable as motivating factors to

¹⁶ (Law et al., 2018)

^{17 (}Diaz et al., 2018)

garner support for policy changes.^{18,19} For example, mesic forests with harvest cycles greater than 80 years provide greater support for biodiversity,²⁰ and larger RMZs and increased retention of green trees provide better fish and wildlife habitat, improved water quality,²¹ and enhanced resiliency to future hydrologic extremes caused by global climate change.^{22,23}

Non-timber forest management

While avoiding harvest altogether would provide the greatest gains in carbon storage and sequestration,^{24,25} a large-scale moratorium on private timber harvest is not a reasonable goal given the demand for Oregon's wood products. Still, initiatives like the community forests described in Section III (Policy Option III) have managed to take select plots out of production, protecting local waters and ecosystems, providing restoration jobs, and maximizing climate change mitigation. Ecotrust's Whole Watershed Restoration Initiative (WWRI) is another example of economically beneficial non-timber forest management. WWRI has attracted a combined \$10 million in funding from state and federal agencies and created an estimated 160 to 240 jobs, mostly rural, while also restoring over 6,500 acres of habitat and 900 miles of stream.²⁶

Equity and justice priorities

Sebastian Francisco Perez travelled all the way from Guatemala to St. Paul, Marion County, Oregon, hoping to make enough money to cover fertility treatment for his wife so that the two could start a family. Less than two months later, he died on the job of a heat-related illness during the 2021 'heat dome,' an unprecedented heatwave which scientists attribute to human-induced climate change.^{27,28} His death is a profoundly tragic example of how BIPOC, low-income, rural, and immigrant and refugee communities are bearing the greatest impacts of climate change.^{29,30,31}

The intersection of climate change and injustice demands policy measures that mitigate climate change while also incorporating equity and justice considerations. The policy options provided

- ¹⁹ (Diaz et al., 2018)
- ²⁰ (Kline et al., 2016)
- ²¹ (Diaz et al., 2018)
- ²² (Palmer et al., 2009)
- ²³ (ForestWaters, 2020)
- ²⁴ (Shanks, 2008)
- ²⁵ (Hudiburg et al., 2019)
- ²⁶ (Ecotrust, n.d.)
- ²⁷ (Rubin, 2021)
- ²⁸ (McGrath, 2021)
- ²⁹ (Gamble et al., 2016)
- ³⁰ (Gowda et al., 2018)

¹⁸ (ForestWaters, 2020)

³¹ (Islam & Winkel, 2017)

in this paper are designed to provide priority benefits to disadvantaged and adversely impacted communities.

Better monitoring and reporting

In order to best serve the most adversely impacted communities, more data is needed on the locally specific public health impacts of forestry operations. In 2017, the Oregon Department of Forestry (ODF) and the timber industry managed to suppress a DEQ study that would have illustrated the geographically specific water-related health impacts of privately owned forest practices in Oregon.³² Furthermore, emissions from the forestry sector are not included in the Department of Environmental Qualities (DEQ's) Greenhouse Gas Reporting Program. Forestry sector emissions must be tracked along with all of the other industries in the state in order to set and achieve accurate climate change mitigation goals.

III. POLICY OPTIONS

The three climate-smart forestry policy models described in this section are intended to catalyze widespread adoption of the climate-smart forestry principles described in Section II. Each policy option is illustrated with at least one case study to provide lessons learned and evidence of feasibility. This section concludes with a discussion of hybrid models that combine the three basic policy options.

POLICY OPTION I: FEE-TO-INVESTMENT

A "fee-to-investment" model would place a fee (or tax) on the largest private forest owners' revenue in Oregon. Revenue from the fee would then be directed to fund climate-smart forestry initiatives on private lands.

Case I: Passing and implementing the Portland Clean Energy Fund (PCEF)

The Portland Clean Energy Fund ("PCEF") passed by 65% as a Portland city ballot measure in 2018. The campaign and policy mechanism behind PCEF could be adapted to the context of climate-smart forestry, as discussed below under *Policy implications*. The program created by PCEF awards grants to clean energy and climate-related initiatives, and the legislation contains stringent requirements to ensure that priority funding is given to projects that specifically benefit BIPOC and low-income communities, who are known to be most heavily impacted by pollution and climate change.^{33,34} Funding for PCEF comes from a 1% surcharge placed on large retailers' revenue within the City of Portland.³⁵ The program is projected to provide \$44M to

³² (Schick, 2017)

³³ (Gamble et al., 2016)

³⁴ (Islam & Winkel, 2017)

³⁵ (Portland Clean Energy Fund, n.d.)

\$61M annually for qualified projects, and the first round of grants has been released. Summaries of projects funded by PCEF grants are available online.³⁶ Funds are allocated annually as follows: 40-60% for clean energy programs, 20-25% for workforce development, contractor training and support, 10-15% for green infrastructure and regenerative agriculture, and 5% for innovation.

The 1% surcharge on large retailers' revenue in Portland can also be referred to as a "gross receipts tax." A gross receipts tax was chosen for several reasons:³⁷

- First, large retailers cannot move to avoid the surcharge if they wish to continue to sell products in Portland, where they conduct a high volume of sales;
- second, unlike a tax on profit, retailers cannot avoid a tax on gross receipts by using tax havens;
- third, large retailers often advertise universal prices nationally, meaning they are unlikely to implement higher prices in Portland relative to stores in other areas; and,
- fourth, even if retailers did opt to adjust their prices, economic studies found that the 1% surcharge, which importantly does not apply to basic goods like staple groceries and medications, would have little to no impact on Portland residents, including low-income individuals and families, and would not produce effects beyond those expected from normal price fluctuations.

The coalition of more than ten organizations that built the campaign and continues to monitor PCEF's implementation has released a 200-page toolkit detailing the policy platform, campaign strategies, and insider perspectives on the work.³⁸ As described in the toolkit, the road to passing PCEF included four years of intensive planning, organizing, polling, and relationship-building between BIPOC-led frontline community organizations and the more predominantly white local environmental organizations. Due to the disproportionate impact of climate change on BIPOC communities and existing inequities within the city, BIPOC-led organizations were given the final say in large decisions, with the generally whiter environmental organizations providing ample support. The campaign's leadership structure was perceived by campaign and coalition members as an important measure to help ensure that climate and equity received equal priority.³⁹

Policy implications

The ballot initiative's landslide victory despite opposition from large retail corporations⁴⁰ and the Portland Business Alliance⁴¹ should inspire forest and climate advocates to consider the possibility of creating a similar fund for climate-smart forestry. Two parallels in the forest context make the case stronger for a PCEF-like initiative: first, like big retailers in Portland, timber companies in Oregon cannot physically move the forests they own to escape a

³⁶ (City of Portland, 2021)

³⁷ (Voss-Andreae, 2020)

³⁸ (Voss-Andreae, 2020)

³⁹ (Voss-Andreae, 2020)

⁴⁰ (Voss-Andreae, 2020)

^{41 (}Guevarra, 2018)

surcharge; second, like PCEF, a forest-climate initiative designed according to the criteria in Section II would provide tangible benefits to local communities, thus making them more likely to support the initiative, especially since Oregon's exceptionally weak forest regulations fail to protect communities and the environment.⁴²

A climate-smart forestry analog to PCEF would need to specifically target the largest timber corporations, with minimal impact on the general population, and provide tangible benefits at the community level. Rural Oregon's politics and culture, often a polar opposite to Portland's, may necessitate a very different approach to outreach and messaging. A 1% surcharge on the largest timber companies' revenue from forests in Oregon, with 'largest' defined by acres owned or annual revenue, could provide substantial funds. Quantitative economic studies like those commissioned by the PCEF coalition should be commissioned to explore a variety of scenarios. Specific data on corporate timber holdings is increasingly available⁴³ and should be included in any analysis.

Investments under this policy option could include a wide range of climate-smart initiatives, including but not limited to longer logging rotations on land operated by small woodland owners, whole-watershed restorations with matching grants from land trusts, and programs to support the development of new industries and job opportunities around prescribed fire, restoration-based thinning, watershed restoration and other conservation initiatives. As with PCEF, funds could be specifically designated for various categories, with equity measures and environmental justice allocations. Priority funding could go to communities who are most adversely affected by climate change and industrial forest practices, as well as those who have been historically excluded from the economic benefits of forestry operations. A significant portion of funding should also be allocated exclusively for the benefit of Tribes, who continue to bear the lasting harms of colonialism.^{44,45} Finally, revolving loans are a useful form of gap financing that can be useful for land acquisition and could be created with seed money from the surcharge in order to generate additional sustained program capacity.⁴⁶

POLICY OPTION II: CLIMATE EASEMENTS

In a conservation easement, a landowner signs a voluntary agreement with a land trust or government entity that imposes specific rules on how a piece of land will be managed. Easement terms are flexible and can be tailored to meet desired conservation outcomes. Landowners can either sell easements to land trusts or the government, or donate them to trusts or government entities for tax credits that may carry forward for a set number of years. In some cases, a landowner can sell part of an easement and donate the rest. The landowner still owns the land, and can still use it as they wish as long as they adhere to the terms of the

⁴² (ForestWaters, 2020)

⁴³ (Coast Range Association, 2020)

⁴⁴ (Wolfe, 2006)

⁴⁵ (Evans-Campbell, 2008)

⁴⁶ (Council of Development Finance Agencies, n.d.)

easement. The land trust or government entity is responsible for monitoring the land and ensuring that easement terms are met. When land is sold, an easement remains intact and is transferred to the new owner.⁴⁷

In our case, we could design "climate easements," with specific requirements for some or all of the management practices outlined in Section II.

Case II: Colorado's easement programs

Conservation easements and their benefits to the public have been thoroughly studied in Colorado. The return on Colorado's investment in conservation easements, which covered nearly 1.5 million acres as of 2018, has been calculated at about \$4-\$12 worth of "ecosystem services" (benefits provided by nature) per dollar invested. The ecosystem services quantified in studies of Colorado's easements include most of the ecological benefits of our climate-smart forestry principles: carbon sequestration and storage, improved water quantity and quality, and protection of biodiversity and habitat. Two large-scale easement programs have been available to landowners in Colorado for more than twenty years: Great Outdoors Colorado, or "GOCO," which started funding easements in 1995, and the Conservation Easement Tax Credit program, established in 2000.⁴⁸

Under Colorado's Conservation Easement Tax Credit program, landowners receive a state tax credit based on the value of the land placed under easement, and can sell part or all of the tax credit if their income is not high enough to fully use the credit. Tax credit amounts are determined as percentages of the land's FMV (**Table 1**).⁴⁹

Tax Years	Formula for Calculating Fair Market Value (FMV) of the Conservation Easement	Tax Credit Cap Per Donated Conservation Easement	Annual Program Cap
2000 - 2002	100% of FMV	\$100,000	N/A
2003 - 2006	100% FMV up to \$100,000, 40% of any additional FMV	\$260,000	N/A
2007 - 2010	50% of FMV	\$375,000	N/A
2011 - 2012	50% of FMV	\$375,000	\$22,000,000
2013	50% of FMV	\$375,000	\$34,000,000

⁴⁷ (Coalition of Land Trusts, 2019)

⁴⁸ (Seidl et al., 2017)

⁴⁹ (Seidl et al., 2017)

2014	50% of FMV	\$375,000	\$45,000,000
2015 - 2016	75% FMV up to \$100,000, 50% of any additional FMV	\$1,500,000	\$45,000,000

Table 1. "Formulae and caps for Colorado's Conservation Easement Tax Credit Program," reproduced from Seidl, et al., 2017.

GOCO, the other major easement program at the state level in Colorado, is a Colorado State Constitutional amendment that provides funding for conservation and recreation projects. GOCO was born out of a Colorado citizens' committee, consisting of environmentalists, elected officials, and business leaders, assembled by the governor and the Executive Director of the Colorado DNR. The committee was tasked with developing a conservation plan for Colorado's 'outdoor resources,' and ultimately elected to develop a ballot initiative that would allocate up to 50% of state lottery proceeds annually to the GOCO program. The initiative passed with support from 58% of voters.⁵⁰ Projects under GOCO, which include easements, are funded entirely by state lottery proceeds. Unlike the tax credits from the Conservation Easement Tax Credit program, GOCO-funded easements come in the form of acquisition grants for land trusts and local governments to purchase easements in bargain sales, where the landowner receives a cash payment for a percentage of the land's fair market value and donates the rest. One of GOCO's larger easement options, the Open Space program, notably requires a cash match from another funding source of at least 25%, and higher matches may increase the odds of receiving a grant.⁵¹

Besides GOCO and the Conservation Easement Tax Credit program, a total of 20 county and municipal governments in Colorado fund easements through voter-approved sales and property taxes as well as bonds. Colorado Parks and Wildlife also offers several million dollars annually through the Colorado Wildlife Habitat Protection Program (CWHPP). Finally, at the federal level, owners of agricultural land in Colorado can take advantage of the Agricultural Conservation Easement Program (ACEP), through which NRCS contributes up to 50% of the land's fair market value, or 75% for unique and vulnerable resources, towards the purchase of an easement.^{52,53}

Policy implications

Current easement opportunities in Oregon. Landowners in Oregon have been relatively slow to utilize easements, due in part to limited funding and awareness of public programs at the state level. Oregon's land use policies that limit development opportunities also present a barrier to valuation of land that might be eligible for easements in other states. As of 2014, Oregon had 192,306 acres of land under easement, compared with the top five states, which had over one

⁵⁰ (Great Outdoors Colorado, 2021)

⁵¹ (Seidl et al., 2017)

⁵² (Seidl et al., 2017)

⁵³ (USDA, 2019)

million acres under easement. Maine ranked first in 2014, at 2.36 million acres of land under easement.⁵⁴ Existing financial incentives for easements are summarized below (**Table 2**).

Easement design. A new form of conservation easements for private timberlands, designated as "climate easements," could be specifically designed to make the climate-smart forestry practices described in Section II economically beneficial for landowners. The ability to sell climate easement tax credits, as in Colorado, could be especially beneficial to small and family landowners whose assets are mostly in land. In addition to tax incentives, the sort of cash payments offered through GOCO could also be an attractive option during times of unfavorable market conditions.

Specific climate easement terms should reward the landowner's contribution to society in the form of additional carbon sequestration and storage and other ecosystem services relative to landowners operating under the minimum standards required under the Oregon Forest Practice Act. To advance equity and justice, climate easement credits and payments should be awarded first for acres where improved forest practices would protect the drinking water of adversely impacted and disadvantaged communities, and should require that landowners create safe working conditions for employees with family-supporting pay, as described in Section II.

Incentive type	Level of government providing	Administering agency, program title, or program category	Program details
Tax incentive	Federal and State	Income tax deduction for charitable donations	IRC § 170(h) permits federal and state income tax deductions for charitable contributions of easements to qualified organizations
		Estate tax benefits	Conservation easements may lower a property's fair market value, which can decrease estate tax liability at the federal and state levels; specifics in IRC 2031(c)
	State	Property tax special assessment	ORS 308A.450 to 308A.465 allow for special conservation easement property tax assessments; practical benefits are typically small due to preexisting preferential assessments for agriculture or timber production
Purchase (cash payment)	Federal	Farm Bill	USDA/NRCS administers the Agricultural Conservation Easement Program (ACEP) which funds easements up to 50% total value; ACEP includes the Wetlands Reserve Program (WRP) and

⁵⁴ (Paulus & Orizola, 2015)

			Agricultural Land Easements Program (ALE); ALE requires a cash match of at least 50%
		Bonneville Power Administration	Includes the Willamette Wildlife Mitigation Program, which will acquire or protect 16,880 acres in the Willamette Valley by 2025
		Forest Legacy Program	The US Forest Service funds up to 75% of project costs for maintaining working forestlands that are in danger of conversion to other uses; requires 25% match of non-federal funds; easements must be held by federal, state, or local public entities
	State	Oregon Watershed Enhancement Board (OWEB)	OWEB's Land Acquisition Grant Program provides some funds for statewide easement acquisition focused on habitat and watershed health; approximately \$40 million spent since 1999 to conserve approximately 60,000 acres
		Department of Environmental Quality (DEQ)	DEQ administers the Clean Water State Revolving Fund with federal funds from EPA; offers low-interest loans to nonprofits and public agencies; focused on water pollution prevention and mitigation, primarily through infrastructure; has potential for use to fund easements but as of 2015 had not been used on easements
		Soil and Water Conservation Districts (SWCDs)	Of Oregon's 45 SWCDs, 12 have taxation authority; some are considering using tax revenue to purchase easements

Table 2. Summary of available financial incentives for conservation easements in Oregon,adapted from the Oregon Conservation Easement Assessment Project's 2015 report.

Funding and legislation. Noting that GOCO, like PCEF (Case II under Policy Option I), came out of a ballot initiative after extensive public engagement,⁵⁶ advocates should consider a similar approach if they seek to create and fund a new climate easement program. Counties where a large percentage of land is owned by large timber companies might elect to implement graduated property taxes that would increase with total holdings, thus exerting a minimal effect on local residents while funding climate easements to reward landowners who practice climate-smart forest management. Likewise, counties or municipalities with strong recreation or tourism economies could enact targeted sales taxes on gas, recreation gear, and bars and restaurants that would fund climate easements with tangible benefits to local waters and habitat as well as climate mitigation. Finally, the existing programs in **Table 2** are underutilized and should be more widely promoted.

⁵⁵ (Paulus & Orizola, 2015)

⁵⁶ (Great Outdoors Colorado, 2021)

Government agencies. State agencies could also conduct landowner outreach and provide long-term compliance monitoring, which would create permanent rural jobs. In Oregon, ODF and OWEB are well positioned to start this process. Agencies should also be required to increase outreach and education for existing easement opportunities, as well as more actively participating in sponsorship for federal easements, like the Forest Legacy program. Both ODF and OWEB will require additional funding from the state legislature to fully recognize this potential, as these state agencies need additional capacity and training.

POLICY OPTION III: COMMUNITY FORESTS

The term "community forest" does not have one specific definition, but it generally refers to a forest that is owned and operated by entities that may include but are not limited to local communities, government entities, Tribes, nonprofits, or cooperatives.⁵⁷ Community forests provide tangible benefits to the community, which may include:

- employment,
- revenue,
- water purification,
- recreation opportunities, and
- habitat for fish and wildlife.⁵⁸

The following case study examines a community forest in Washington State.

Case III: The Nisqually Community Forest

The Nisqually Community Forest, a wholly-owned and independently governed subsidiary of the Nisqually Land Trust, began with 1920 acres in the Mashel watershed, adjacent to another property owned by the Trust.⁵⁹ Those first 1920 acres were acquired from Hancock Forest Management, one of Oregon's largest timber investment companies, which uses investor-driven management practices that harm the environment and reduce benefits to local communities.⁶⁰

The land was purchased in three stages from 2016 to 2018 for a total cost of about \$9 million. The funds for acquisition, which came from a combination of State, Federal, Tribal, and private sources, are outlined below (**Table 3**). An additional 1280 acres were purchased in 2021, with 50% of funding coming from the Washington Recreation and Conservation Office's Community Forest Program.^{61,62} The primary management goals of the Nisqually Community Forest are to:

- create local and family-sustaining jobs in forestry and milling,
- protect fish and wildlife, and,

⁵⁷ (Harris, 2021)

⁵⁸ (Northwest Community Forests, 2020)

⁵⁹ (Nisqually Land Trust, 2020)

⁶⁰ (Schick & Davis, 2020)

⁶¹ (Washington Recreation and Conservation Office, 2021)

⁶² (Harris, 2021)

• support recreation.

The Nisqually Community Forest has also sold 3400 acres of carbon credits to Microsoft to finance loan repayment and further land acquisition.⁶³

The projected annual revenue from timber harvest in the first five years is estimated at \$80,000-\$120,000 with a net revenue from acres managed for timber of \$20,000-\$30,000. In the long term, Nisqually Community Forest Board of Directors of the project aim to acquire around 30,000 acres within the watershed to support sustainable timber harvest and create a large number of steady forestry jobs; in the short term, the Board aims to pay off the loans used to acquire the land, create more jobs, expand recreation opportunities, and improve the health and productivity of the land.⁶⁴

The forest is not expressly designated as a climate solution, but it is managed under a plan that aligns readily with the climate-smart practices outlined in Section II of this document. Existing old-growth sections, riparian zones, and stands in ecologically sensitive areas are managed for ongoing growth and late-successional characteristics, meaning they continuously sequester and store carbon. Stands that are managed for timber are designated as "long rotation" and will be harvested in 80-100 year rotations, which will meet and/or exceed the standards for best practice from a carbon storage and sequestration perspective.^{65,66}

As mentioned in the introduction to this section, there are a variety of existing models for ownership and management of community forests.⁶⁷ The Nisqually Community Forest exists as a wholly-owned subsidiary of the Nisqually Land Trust, which allows it to operate independently for the most part while taking advantage of some of the Trust's infrastructure.⁶⁸

Policy implications

The Nisqually Community Forest's management scheme meets and in some cases exceeds the guidelines for climate-smart forestry outlined in this document, yet it was not designed specifically as a climate mitigation project. The fact that the forest provides significant and tangible community benefits while also helping to mitigate climate change supports the notion that climate, ecological, and societal benefits can be realized in tandem, and that non-climate goals, which are more immediately obvious at the local level, are an important factor in building support and acquiring funding for a community forest.

Any initiatives to introduce legislation or otherwise promote community forestry should include funding stipulations that set stringent climate practice requirements. Two programs in Washington State could be considered as models:

⁶³ (Nisqually Land Trust, 2020)

⁶⁴ (Nisqually Community Forest & Washington Association of Land Trusts, 2018)

⁶⁵ (Nisqually Land Trust, 2020)

⁶⁶ (Law et al., 2018)

^{67 (}Harris, 2021)

⁶⁸ (Nisqually Land Trust, 2020)

- the Community Forests Program, managed by the Washington Recreation and Conservation Office, which provided \$2.3 million to cover 50% of the Nisqually Community Forest's second land acquisition;⁶⁹ and,
- the Community Forest Trust, managed by the Washington DNR, which provided \$100 million for the creation of the 50,000-acre Teanaway Community Forest (also managed by the Washington DNR).⁷⁰

Oregon can build on Washington's success by creating a similar program and including climate change mitigation as a requirement for funded projects. Furthermore, as demonstrated by Nisqually, community forest projects hold the potential to attract private funding, making community forestry a viable and scalable option even when federal funds are limited.

The Northwest Community Forest Coalition has produced a handbook of Federal and State programs in community forestry,⁷¹ as well as a map of existing and proposed community forests in the Pacific Northwest.⁷²

Source	Amount
Nonprofit and foundation funds	
Conservation Fund loan	\$250,000
Puget Sound Energy Foundation grant	\$500,000
Tribal funds	
Nisqually Indian Tribe	\$157,000
Public funds	
Puget Sound Acquisition and Restoration Large Cap	\$5,889,000
Pierce County Conservation Futures	\$600,000
US Forest Service Community Forest Program	\$383,000
Washington Wildlife and Recreation Program	\$1,100,000
Salmon Recovery Funding Board	\$724,165
Total	\$9,603,165

Table 3. Funding for Nisqually Community Forest's first round of land acquisition,⁷³ reflecting last-minute additional support from the Puget Sound Energy Foundation.⁷⁴

⁶⁹ (Washington Recreation and Conservation Office, 2021)

⁷⁰ (Washington State Department of Natural Resources, 2021)

⁷¹ (Knobloch et al., 2018)

^{72 (}Mt. Adams Resource Stewards, n.d.)

⁷³ (Nisqually Community Forest & Washington Association of Land Trusts, 2018)

⁷⁴ (Nisqually Land Trust, 2020)

HYBRID MODELS COMBINING POLICY OPTIONS I-III

Option I (fee-to-investment) + Option II (climate easements)

- This option could be seen as a way of balancing the scales: fees levied on the largest and wealthiest timber corporations could be used to fund climate easements for smaller and medium-sized operations that are willing to adhere to climate-smart principles.
- A 1% fee is unlikely to greatly reduce the prevalence of harmful industrial timber management, but the revenue could be extremely beneficial to small and medium-scale producers who are able to access new funds for climate easements.

Option I (fee-to-investment) + Option III (community forests)

- Revenue from a fee on the largest timber operators in the state would be invested into land acquisition and capacity-building for climate-smart community forestry.
- The program could use grants, like PCEF, but considering the timescale of large-scale land acquisition and forest management, as well as the fact that community forests are expressly designed to pay back their debts over time, a revolving loan fund may be ideal.
- A revolving loan also grows slowly over time, increasing program capacity.
- The greatest barrier to community forestry is land acquisition. This hybrid model offers a solution.

Option II (climate easements) + Option III (community forests)

- Climate easements on community-owned forests could be used to legally require climate-smart practices
- Easements could also provide tax benefits to community forests' governing entities, which would leave them with more funds to create local jobs

IV. RELATED INITIATIVES

This section contains summaries of two relevant proposals from allied organizations and brief analyses of how they relate to the policies proposed in this document.

The PNW Forest Climate Alliance's *Green New Deal for Pacific Northwest Forests: A Vision for PNW Forests and Communities* outlines a general plan to eliminate forestry emissions, mitigate climate change, and create co-occurring benefits for communities and ecosystems.⁷⁵ The plan would require funding from a Federal Green New Deal or a related Federal program. Ideally, the ideas proposed in this whitepaper should be useful in further developing a specific policy platform, whether or not federal funding is available.

The Coast Range Association (CRA)'s *Climate and Oregon's Industrial Forests: A Green New Deal Proposal*⁷⁶ calls for the majority of Oregon's industrially managed coastal range forests to be

⁷⁵ (PNW Forest Climate Alliance, 2021)

⁷⁶ (Willer, 2021)

rapidly purchased with Federal Green New Deal funds and transferred into cooperative, community-level ownership. Ideally these community-owned forests would provide local jobs, protect watersheds and habitat, and mitigate climate change. Policy Option III (Community Forests) in this whitepaper is similar to the CRA's proposal, but does not rely on federal funding.

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