

Wild Carbon FAQ

Why is conserving forests critical to mitigate the dual crises of climate change and biodiversity loss?

We are living in one of the most important decades for addressing climate change and biodiversity loss. Forests have been central in the debate around how to address these crises because they are a strong stabilizing force for global climate and biodiversity and store around 861 gigatons of carbon, equivalent to almost a century's worth of annual fossil fuel emissions. In fact, forests are doing much of the work to mitigate climate change already–of the 36.8 billion metric tons of the CO₂ we put into the atmosphere in 2023, forests absorbed around 20 percent of that, 1.5 times more carbon than the United States emits annually 2. Yet, since 1850 about 30 percent of all CO₂ emissions have come from deforestation, and we are still losing forests at an alarming rate—twenty-four million acres a year equaling about 1-2 gigatons of CO₂. Forests are also critical to biodiversity—they cover just a third of the global land area but are home to most of the Earth's terrestrial biodiversity, containing 600,000 different tree species, 80 percent of amphibian species, 75 percent of bird species, and 68 percent of the world's mammal species.³

Even with a rapid reduction in fossil fuels, we will need to drawdown carbon already in the atmosphere to stabilize global temperatures. A new study published in Nature indicates that conserving and restoring forests can potentially capture an additional 226 gigatons of carbon, up to a third of the planet-warming gases we have put into the atmosphere since the dawn of the Industrial Era, and 60 percent of that can be accomplished by just letting forests grow old. Further, nature-based climate solutions, such as protecting and restoring the forests where most species live, address the interrelated crisis of biodiversity loss.

What can we do about climate change and biodiversity loss in the Northeast?

Here in the Northeast USA, we can play an outsized role in the fight against climate change because we are home to the Northern Forest. The Northern Forest is the largest intact temperate forest left in the world⁵ and has been identified as part of a Global Safety Net that, if conserved, would dramatically stem the tide of climate chaos while reversing further biodiversity loss at the same time.⁶

Northeast Wilderness Trust (NEWT) envisions—and is working to establish—a landscape of connected and resilient wildlands throughout the Northeast. Wildlands are designated protected areas where natural processes are allowed to unfold with no active management and minimal human intervention. Wildlands conservation is a proven and cost-effective means to slow biodiversity loss and improve carbon stocking and climate resilience, and yet less than five percent of the Northeast (defined as New England and New York) is protected as wild. NEWT is working to change that. In its short 20-year history, NEWT has conserved over 82,000 forever-wild acres in support of regional goals to conserve at least 10% of the Northeast as wild by 2060, focusing on landscapes with exceptional ecological and climate resilience value.

¹ Friedlingstein, P. et al. (2023). Global Carbon Budget 2023, Earth Systems Science Data, 15, 5301–5369. https://doi.org/10.5194/essd-15-5301-2023.

² EPA. (2024). Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. U.S. Environmental Protection 8 Agency, EPA 430-D-24-001. https://www.epa.gov/ghgemissions/draft-inventory-us-greenhouse-gas-emissions-9 and-sinks-1990-2022.

³ FAO and UNEP. (2020). The State of the World's Forests 2020. Forests, biodiversity and people. Rome. https://doi.org/10.4060/ca8642en ⁴ Mo, L. et al. (2023). Integrated global assessment of the natural forest carbon potential. Nature 624, 92–101. https://doi.org/10.1038/s41586-023-06723-z.

⁵ Kuennecke, B. H. (2008). Temperate Forest Biomes. Bloomsbury Publishing.

⁶ Dinerstein, E. et al. (2020). A "Global Safety Net" to reverse biodiversity loss and stabilize Earth's climate. Science Advances, 6(36), https://doi.org/10.1126/sciadv.abb2824.

What is a carbon credit? How is a Wild CarbonTM credit different?

A forest carbon credit, or forest carbon offset, represents a metric ton of carbon sequestered (removed from the atmosphere) and stored in a forest. Companies that have made emission reduction commitments can purchase carbon credits to compensate for activities that produce carbon emissions elsewhere. Most forest carbon credits come from actively managed and logged lands, whereas Northeast Wilderness Trust's Wild CarbonTM credits are generated from formerly logged land that has been recently purchased and protected as forever-wild *and* permanently conserved with a legally binding forever-wild conservation agreement. These forests will never be converted to another type of land use (timber, agricultural, residential, or commercial), and will never release carbon again through logging.

What is additionality? What is the additionality of Wild Carbon?

A climate change mitigation project must provide *additional* climate benefits that would not have occurred without the project activity. This is called additionality and is a central tenet of carbon credit projects. A forest carbon project must exceed a business-as-usual scenario, or the baseline scenario, to establish additionality and generate credits. Most forest carbon projects achieve additionality by agreeing to log less trees during the term of the carbon agreement, generally 20-40 years, than would have otherwise occurred.

Wild Carbon achieves additionality in multiple ways. First, NEWT uses carbon credit pre-sales to help fund the acquisition and conservation of properties that were previously being managed as timber or threatened by logging. So, without carbon financing, these projects would not have occurred otherwise. Then, NEWT places a legally binding forever-wild conservation agreement on the property, typically held by a partner land conservation organization. The management regime for these forests then permanently shifts from management for timber to no active management or intervention. Rather, natural processes are allowed to unfold. Often called rewilding, this passive management will allow the forest to grow old and develop the structural complexity notable of old growth forests. Wild Carbon supports a type of conservation that has immense co-benefits beyond carbon, including sustaining biodiversity through protection of wildlife habitat and corridors and supporting human health through protection of watersheds that supply drinking water and stormwater attenuation.

What is permanence? How does Wild Carbon address permanence?

Permanence refers to the durability of a given climate solution. Most forest carbon projects in the voluntary marketplace last 20-40 years during which the landowner is permitted to harvest. Once the term expires, the landowner can harvest or develop the property. Credits generated from NEWT's Wild Carbon program are generated from forests protected by legally-binding forever wild conservation agreements, thus the carbon is as permanent as Mother Nature will allow.

What is leakage? How does Wild Carbon address leakage?

Leakage, or activity shifting leakage, is the concept that participation in a forest carbon project results in less harvest on the enrolled property, which may cause a landowner to intensify harvest on other properties under their ownership. NEWT does not harvest on any of its Preserves, so we do not have to directly address leakage, but we take what is called a 'leakage deduction' i.e., we reduce our credit yield acknowledging that the conservation of forest as forever wild may result in other forest being logged.

How is the integrity of Wild Carbon credits ensured?

Wild CarbonTM credits are registered and verified according to the standards and rules of <u>ACR</u>, a global carbon crediting program, which hosts a Registry where project information is publicly available, and credits are issued and tracked. Credits must go through a rigorous, independent verification process and then are reviewed again by the Registry prior to being issued.

How does carbon revenue support NEWT's mission?

Carbon revenue, often in the form of advance payments, made the acquisition of many of our recent Preserves possible while providing an ongoing revenue stream to support their long-term stewardship. For example, a pre-purchase of carbon credits from our carbon project 'Eagle' supported the conservation of an additional five preserves totaling over 9,000 forever-wild acres. Additional carbon credit revenue will support our strategic goal to conserve 100,000 acres as forever-wild by 2030.

What are the co-benefits of Wild Carbon projects?

Less than 1 percent of the Northeast's pre-industrial forests remain standing. Lands protected as forever-wild are the region's old-growth forests of tomorrow. When it comes to carbon, older, unmanaged forests contain massive carbon stocks stored in soils and above-and below-ground wood that increase every year. If lost, the carbon is irrecoverable over the next century—an amount of time we do not have to address the climate emergency. Wild forests are also crucial for wildlife. Old, wild forests support a higher richness of species, from songbirds to salamanders and fungi to mosses, and trees, and are often safe havens for threatened species and for wildlife sensitive to human disturbance.

The Wilderness Preserves created in part due to our Wild Carbon program provide a suite of ecosystem services that sustain biodiversity, support natural processes, and undergird human economies with a range of ecosystem services that act as climate solutions. Please visit our website to learn more about the <u>Places we Protect</u>.