



Highstead

Maine's Climate Imperative: Our State's Forests as a Natural Climate Solution

Overview

Maine's Forests: Where we are today:

Forest Size: 17.4 million acres (89% of land base)

Current Forest Carbon Storage: 1.6 billion tons, 574 million tons aboveground

Co-Benefits: In addition to natural climate benefits, Maine's forests provide clean water, clean air, shading and cooling, recreation, healthier people, equitable access to the benefits of forests, and jobs and economic opportunity.

Five Pathways for Maximizing Forests' Potential

The 2022 paper, *New England's Climate Imperative: Our Forests as a Natural Climate Solution*, lays out a way forward for Maine and all New England states to reduce forest loss, increase the forests' contribution to mitigating climate change, and help achieve state climate goals through five complementary pathways. These pathways have been developed to be supportive of existing state climate-related focal areas and actions by providing information on the potential climate mitigation and co-benefits of different forest-related strategies.

The five pathways are:

- **Avoided Deforestation** – Minimize the loss of forest to development
- **Wildland Reserves** – Establish additional wildland reserves that are left to grow old and accumulate more carbon
- **Improved Forest Management (IFM)** – Manage forests more effectively to yield increased carbon storage and sequestration
- **Mass Timber Construction** – Store more carbon by constructing more buildings with wood products
- **Urban and Suburban Forests** – Increase tree cover and patches of forest in urban and suburban areas

Every state in New England is addressing the climate challenge in ways that align with its current forest cover and its unique opportunities and challenges. Maine can realize significant additional climate benefits by exploring these five pathways. And if the state works with its New England neighbors on a coordinated approach, the region can serve as a global example of forests' potential as a natural climate solution.

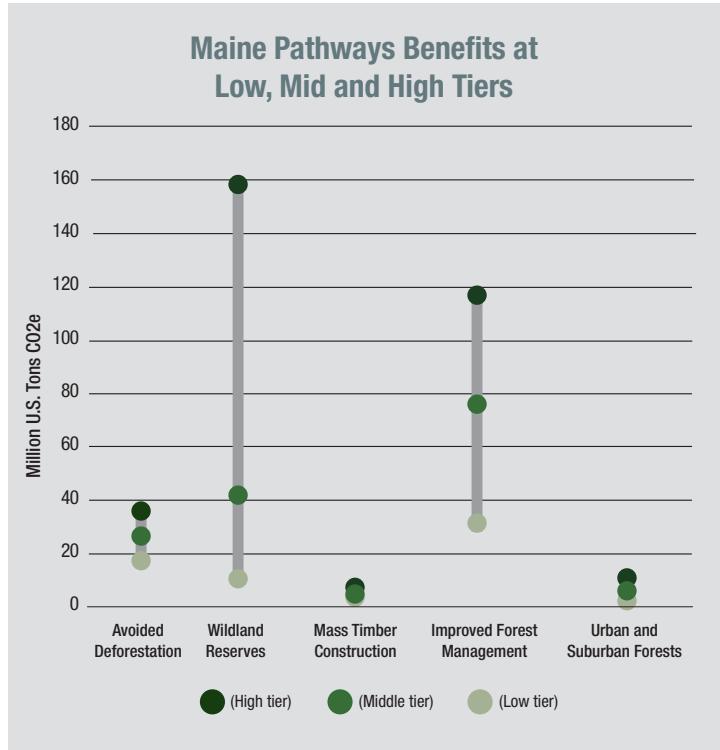
Maine Climate Action & Emissions Reductions Goals: A Summary

Greenhouse Gas Reduction Goals & Legislation	State-level Climate Advisory Bodies	State Focal Areas Relevant to Forests
<p>45% below 1990 levels by 2030 and 80% by 2050 – <i>Act to Promote Clean Energy Jobs and to Establish Maine Climate Council</i> (2019)</p> <p>Carbon neutrality by 2045 – <i>Governor's Executive Orders</i></p>	<p>Maine has an active policy process around climate change mitigation, adaptation, and resilience.</p> <p>The Maine Climate Council (MCC) has been working since 2019 to develop a four-year plan for Maine to reach its emissions reduction goals.</p>	<p>From 2021 <i>Maine Won't Wait, A Four-Year Plan for Climate Action</i>:</p> <ul style="list-style-type: none">• Increasing the use of efficient and climate-friendly Maine forest products, including mass timber and wood-fiber insulation.• Increase by 2030 the total acreage of conserved lands in the state to 30% through voluntary, focused purchases of land and working forest or farm conservation easements.• Establish by 2021 a stakeholder process to develop a voluntary, incentive-based forest carbon program (practice and/or inventory-based) for woodland owners of 10 to 10,000 acres and forest practitioners.• Engage in regional discussions to consider multistate carbon programs that could support Maine's working lands and natural-resource industries, and state carbon-neutrality goals.

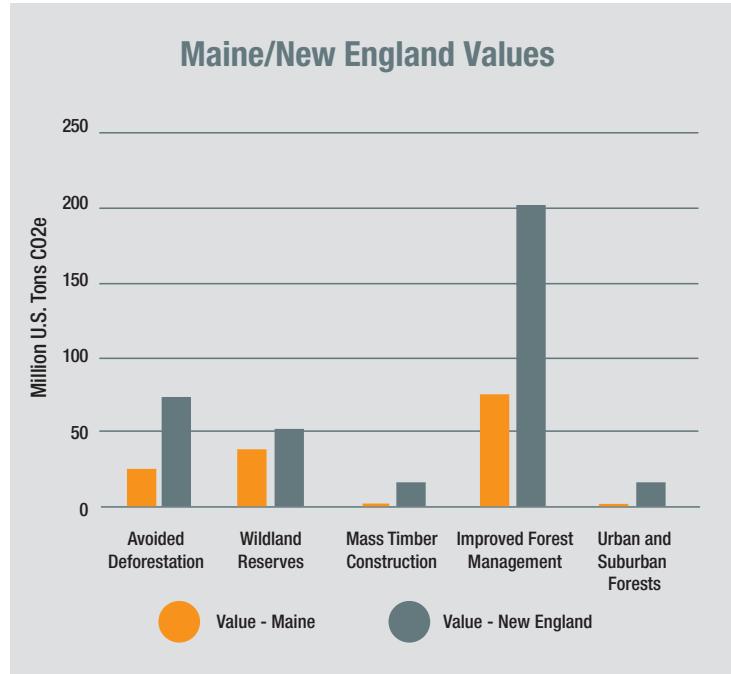
Potential Pathway Impacts

Together, the five pathways in Maine could increase the amount of atmospheric carbon absorbed by Maine's forests by 25%. And as Maine implements its ambitious emissions reduction goals, the state's forests become even more

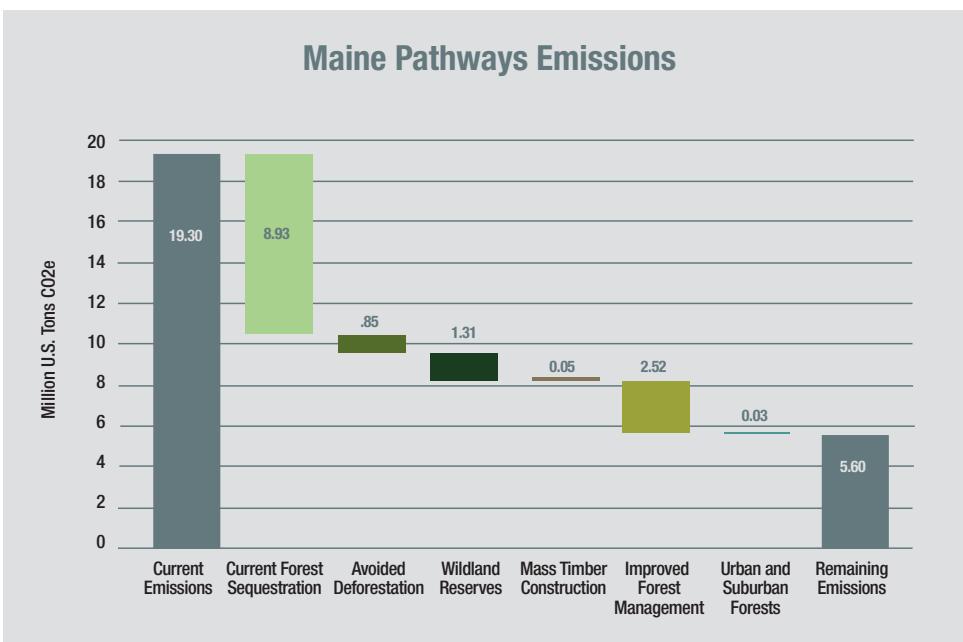
valuable, with the potential of absorbing over 100% of Maine's projected emissions by 2050 if proposed emissions reductions scenarios are implemented.



The accumulated carbon benefits of each pathway by 2050, shown at low, middle, and high levels of adoption.



Additional CO₂e sequestered by 2050 above the business-as-usual (BAU) scenario in Maine and the New England region as a whole. Estimates shown are associated with the adoption of each pathway at its middle tier.



The adoption of each pathway (shown here at their average annual contribution when adopted at their middle tier) lowers Maine's net emissions by sequestering more carbon in the forests. Please note, to show the detail associated with each pathway, the vertical axis has been scaled to start at 40 million tons CO₂e.



About this Brief

The information in this document is drawn from the 2022 paper, *New England's Climate Imperative: Our Forests as a Natural Climate Solution*, which lays out, in detail, five pathways that can help Maine, and New England as a whole, increase the climate benefits of forests. The paper was developed by Highstead, a regional conservation non-profit based in Redding, Connecticut. The full report can be found at highstead.net.