



# Vermont's Climate Imperative:

## Our State's Forests as a Natural Climate Solution

### Overview

#### Vermont's Forests: Where we are today:

**Forest Size:** 4.5 million acres (73% of land base)

**Current Forest Carbon Storage:** 530 million tons, 212 million tons aboveground

**Co-Benefits:** In addition to natural climate benefits, Vermont'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 Vermont 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. Vermont 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.

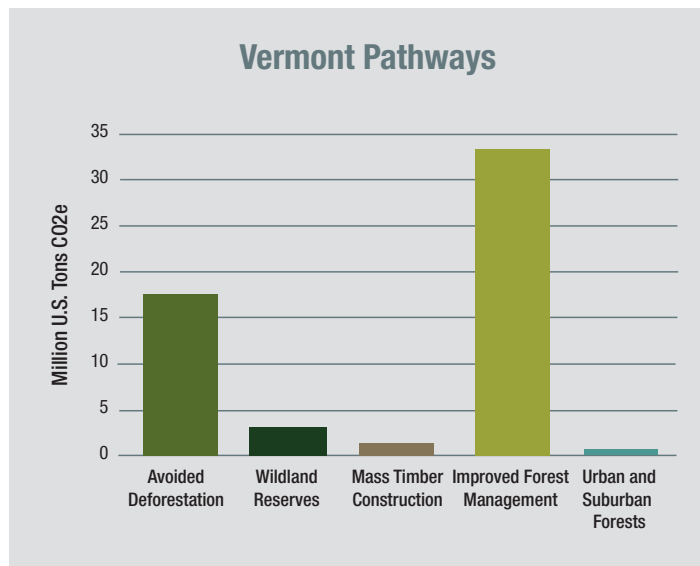
### Vermont Climate Action & Emissions Reductions Goals: A Summary

Greenhouse Gas Reduction Goals & Legislation	State-level Climate Advisory Bodies	State Focal Areas Relevant to Forests
<p>26% below 2005 levels by 2025, 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050</p> <p>– <i>Vermont Global Warming Solutions Act (GWSA)</i></p>	<p>Vermont has an active policy process around climate change mitigation, adaptation, and resilience.</p> <p>In 2019, the Vermont Forest Carbon Sequestration Working Group was tasked with studying how the state's forestland could be enrolled in carbon markets.</p> <p>Since 2020, the Vermont Climate Council has been working to develop a plan to meet the state's emissions reductions goals of the GWSA.</p>	<p>2020 Vermont Forest Carbon Sequestration Working Group Final Report:</p> <p>Forest carbon sequestration offset projects on public and private land</p> <p>2021 Vermont Climate Action Plan:</p> <ul style="list-style-type: none"><li>• Technical assistance, education, and management of natural and working lands (including forests) for biodiversity and climate resilience.</li><li>• Expanded funding for forestland ownership and conservation</li><li>• Promote and incentivize compact development to reduce forest fragmentation</li><li>• Develop programs and leverage market-based solutions that incentivize forest management for increased carbon storage</li><li>• Increase tree cover</li></ul>

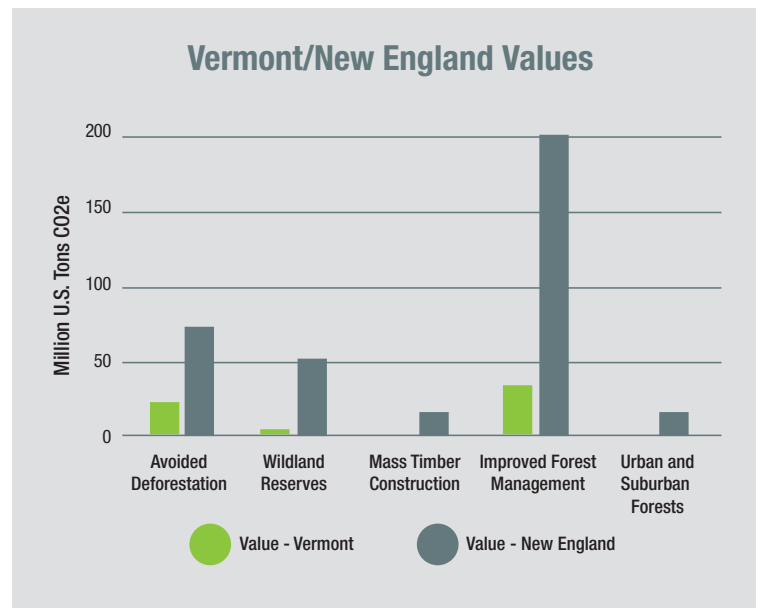
# Potential Pathway Impacts

Together, the five pathways in Vermont could increase the amount of atmospheric carbon absorbed by Vermont's forests by 19%. And as Vermont implements its ambitious emissions reduction goals, the state's forests become even

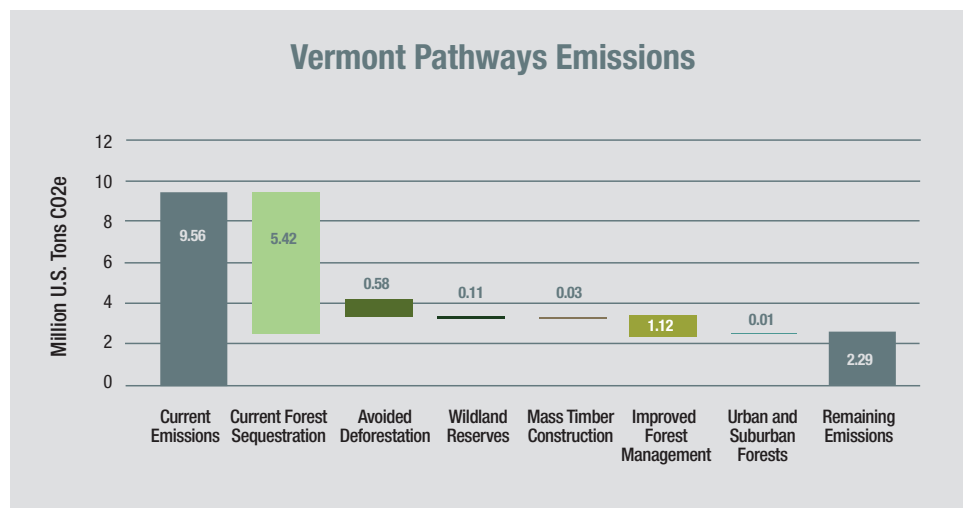
more valuable, with the potential of absorbing over 100% of Vermont's projected emissions by 2050 if proposed emissions reductions scenarios are implemented.



Additional Carbon Dioxide Equivalent (CO2e) sequestered by 2050 above the business-as-usual (BAU) scenario in Vermont. Estimates shown are associated with the adoption of each pathway at its middle tier.



Additional CO2e sequestered by 2050 above the BAU scenario in Vermont 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 Vermont'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 U.S. 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 Vermont, 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](https://highstead.net).