
PROMOTING NATURAL CLIMATE SOLUTIONS: STORING AND SEQUESTERING FOREST CARBON

Vermont is 78% forested. The trees and soils are naturally sequestering and storing atmospheric carbon helping to mitigate the impacts of climate change. TNC is advancing innovative ecosystem market solutions like the Family Forest Carbon Program and Forest Carbon Co-ops to help Vermont landowners access financing to improve and conserve their forests. Our own Burnt Mountain Carbon Project is generating revenue for forest protection projects and demonstrating how carbon financing can advance forest protection.

Vermont continues to lead the region in landowners enrolling in the Family Forest Carbon Program with 649 landowners holding a collective 159,000 acres expressing interest and meeting the basic qualifications for the program. To determine the right practices and forest stands to enroll, we need to review the forest management plans and if necessary, visit the property. As of the end of July, 122 properties covering 39,692 acres had moved to this next level review. We are accelerating the review of plans and now have 25 contracts signed covering 5,468 acres. Our goal for calendar year 2023 is 8,500 acres and we believe we are on track to meet the goal.



STEWARDING OUR LANDS

We are committed to the thoughtful and enduring care of the lands and waters that we have protected. Guided by the best available science, we approach this goal through three strategic pillars: **(1) Legal Compliance**, which upholds our commitment to permanent conservation through required monitoring and reporting tasks **(2) Managing for Resilience** compelling us to manage for conditions that maximize biodiversity in a changing climate **(3) Leveraging our Lands** which includes our public access, science and research, and community engagement activities that provide opportunities for all people to connect with the natural world.

Innovative Science Based Restoration

In early August, TNC was awarded ~\$2.5 million from a private foundation to continue working with the United States Forest Service (USFS) to restore American elms. This is the third award, for a total of ~\$6.2 million, that builds on nearly a decade of work by both partners to identify American elms that are tolerant of Dutch Elm Disease and restore them to floodplains and urban forests across New England. It has also funded groundbreaking research at the USFS to accelerate the breeding program and develop best practices for American elm reintroduction.

At TNC, this effort was born in the former Connecticut River Program, but has always had an outsized presence in Vt. Our stewardship team leaned into this from the onset, recognizing the important ecological role that elm plays in the landscape and the necessity of this project to ensure the long-term function and resilience of floodplains in the northeast. As early as 2014, the team mobilized to investigate survivor elms, establish plantings of experimental elm trees, and reintroduce disease tolerant elms to floodplains at 10 TNC natural areas and 26 partner-owned sites throughout Vermont.



Senior Ecologist Gus Goodwin looking at Elm Trees



In total, this effort has yielded ~7,000 trees that represent 142 novel crosses between 23 survivor elms identified by TNC in New England and a several varieties identified by the USFS from other parts of the country. These trees are set to be tested for tolerance to Dutch Elm Disease in 2026, when each of these trees will be treated with a direct stem injection of the pathogen and monitored for mortality.

This is a story about an innovative, science-based approach to restoration. But it is also a story about lands and the people that manage them. Our natural areas are the stage from which our chapter can respond to our region's most pressing threats and most exciting opportunities. Projects that leverage landscape-level change as well as site-based ecological gains, provide a model for our chapter and enduring returns on our conservation investments.

Our stewardship team, with their deep commitment to the places they manage and willingness to commit to long-term projects that operate on nature's own timeline, deserve a moment of celebration for reaching this key milestone.



Elm Along Water