Landscape Scale Restoration Project Report

Project Name: Accelerating Improved Forest Management and Carbon Sequestration in New York State

Funding Year: 2021

Stakeholders

Forest Service Region: USDA Forest Service - R9

Sponsoring Organization: New York State Dept. of Environmental Conservation

State Project Contact: Brittany Wienke | 7189306364 | brittany.wienke@tnc.org

Participating Organizations:

Grantee: The Nature Conservancy

Project Funding

Agreement(s): 21-DG-11094200-185

Project Design

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Project Purpose

Since submitting our initial grant proposal, best practices to develop meaningful carbon sequestration projects have changed substantially, and the Nature Conservancy has shifted our carbon sequestration focus to working with private landowners. With these high-level strategic changes, we requested to alter the scope of this project in June 2022. In early 2024, ACR, formerly knowns as the American Carbon Registry, released changes to their Improved Forest Management methodology, which substantially altered methods for setting carbon baselines and calculating carbon credits, causing Nature Conservancy staff to re-structure carbon projects that contribute to this grant's deliverables and goals. Due to staff changes, delays caused by COVID-19, temporary program marketing pauses, and carbon methodology changes, the Nature Conservancy also requested a no-cost extension for this Grant, which was approved in April 2024 with a new end date of August 2026.

For this project, the Nature Conservancy proposed to increase the number of forest acres under sustainable/improved management by engaging private landowners in New York in a new carbon project aggregation approach. Previously, we had proposed to work with New York counties.

Since filing our initial application, the Nature Conservancy and the American Forest Foundation launched a new initiative called the Family Forest Carbon Program ("FFCP"). FFCP allows qualified private forest landowners to enroll forested properties as small as 30 acres, previously unable to access the carbon market due to size constraints. FFCP can aggregate smaller parcels and increase the number of acres and ownerships under improved forest management in New York. We will use FFCP to achieve the overarching grant goal of increasing the number of acres in New York under improved forest management. This additional way to achieve our Grant goals was noted in our June 2022 scope change.

The Nature Conservancy's Working Woodlands program connects forest landowners in NY with carbon markets to incentivize improved management, increase forest and carbon stocking levels, and generate revenue. Since early 2024, methodological changes occurring across the voluntary carbon market have made the Working Woodlands program a better fit for very large landowners, typically 10,000 acres or more, and made aggregating several properties under a Working Woodlands model financially challenging. This methodology change affected many Nature Conservancy programs, and is reflective of a major shift in the global carbon market. In response to these market changes, the Nature Conservancy has emphasized FFCP over Working Woodlands as the primary pathway for smaller landowners to participate in voluntary carbon markets. This change represents a programmatic shift for the Nature Conservancy in New York, but still accomplished the grant goal, resulting in an overall increase of acres under improved forest management and greater carbon storage capacity.

As confirmed in our June 2022 scope change, we worked with New York State Department of Environmental Conservation (NYSDEC) to provide a carbon analysis for one State-owned property and a broader carbon spatial assessment of State Forest Lands. These analyses identified ways in which NYSDEC could use State lands for greater carbon sequestration and storage through improved forest management.

Finally, we developed new spatial analysis tools for assessing carbon project feasibility, as stated in our initial grant proposal. This remains unchanged from our initial proposal, and will help advance Nature Conservancy, FFCP, and NYSDEC objectives.

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Resource Objective

Primary Objective

- Improve important forest ecosystems

Secondary Objective(s)

- No Secondary Objectives identified

Strategic Issues

This project directly supported Goals 3 and 4 in the Draft 2020 NY Forest Action Plan.

Goal #3: Ensure Forests Benefits Humans and All Living Creatures: Conserve and manage working forests for multiple values and uses; support forest management as a climate change mitigation and adaptation strategy; and maintain sustainable markets for sustainable forest products.

Goal #4: Appreciate, Support and Protect New York's Forests: Cultivate stewardship ethic among landowners; and foster public literacy about forest health and sustainable forestry.

This project increased the acreage enrolled in the forest carbon markets via FFCP. We worked with landowners whose relatively small acreage would make it difficult to enroll in carbon markets without significant support. Lands enrolled in FFCP receive a management plan and standardized payments for carbon-positive activities in the forest. These lands also provide benefits such as recreation, source water protection, protection of air quality, and wildlife habitat. Some of the lands enrolled in FFCP were permanently protected from conversion to other uses, while most other lands in FFCP are required to remain as forests for the duration of the 20-year contract. As a result, this project indirectly contributed to various strategies under Goal #1: Keep Forests as Forests and Goal #2: Keep New York's Forests Healthy. The project location also intersected with at least 1-2 Multi-State Priority Areas by enhancing forest protection and benefits in these areas.
The major goal of this project was providing a way for relatively small landowners to enroll in the Family Forest Carbon Program, allowing them to access carbon markets and increase carbon storage and sequestration through improved forest management throughout the state of New York. Other outcomes for this project included refining spatial data methods to rapidly evaluate carbon potential on new properties ; and an assessment of a broader set of lands to significantly move NYSDEC forward in actively using state lands to improve carbon sequestration in NY. These activities increased the Conservancy's capacity to scale up carbon project implementation and provided carbon market opportunities for smaller landowners. This project also provided NYSDEC with information on how improved forest management can increase carbon storage and sequestration on NYSDEC-owned lands.

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Collaboration & Partners

Before carbon protocols changed and made Working Woodlands less likely to be useful for smaller parcels, a key component of this project was developing carbon projects under methdologies from ACR, formerly known as the American Carbon Registry. The Conservancy contracted with TerraCarbon, a carbon project developer, which did not directly receive federal funds or provide match but was an important subcontractor. The carbon project developer designed and executed an in-depth forest carbon inventory and began steps to model future forest growth across multiple properties, assess how much additional carbon would be stored as a result of enrollment, and project those numbers over 40 years of growth and harvest to determine the additional carbon benefit provided by this project.

The American Forest Foundation, which jointly administers the Family Forest Carbon Program with the Nature Conservancy, was a key partner in achieving the deliverables and goals of this grant. The American Forest Foundation develops and holds contracts with landowners enrolled in the Family Forest Carbon Program and makes annual payments to enrolled landowners. The Nature Conservancy provides science support, on-the-ground forestry expertise, and landowner outreach efforts. The Nature Conservancy and the American Forest Foundation work very closely to enroll landowners in FFCP, with the joint end goal of improving forest management across the state and increasing carbon sequestration and storage.

Although they did not receive funds from the project, the New York State Department of Environmental Conservation (DEC) was also included as a partner. While this project will not result in a carbon project on state land, an important goal was to evaluate the overall opportunity for NYSDEC to increase carbon storage and sequestration on state forest land through improved forest management.

The Nature Conservancy was responsible for landowner outreach and communication to private landowners and NYSDEC, developing new or improved forest management plans, spatial data acquisition and analysis, overall project management, and project deliverables. Note that although describing potential project partners, TNC requested funds on its own behalf and maintained discretion and control over use of funds, including selection of subcontractors or subgrantees. Grant funding supported overall project management and execution, carbon project development contracts, and miscellaneous project expenses (travel, supplies, etc.). Matching funds primarily supported contractual project development expenses (e.g., forest inventory, development of project agreements and contracts), forest carbon spatial data acquisition, and other miscellaneous project expenses.

Integrated Delivery

Leverage for this project arrived in several forms. While not captured as match, private landowner partners invested significant time and energy in the carbon project enrollment process. Additional leverage was provided by private donations to the Nature Conservancy, funding from FFCP, and from Conservancy general operating funds. Project partners will not provide any match amount for this project. The timeline for this project was based on a 3-year contract. Year 1 included the beginning of landowner outreach and spatial data acquisition/analysis. Year 2 included the development of agreements and contracts and completion of NYS DEC forestland carbon studies, forest carbon project development (inventory and quantification). Year 3 included finalizing agreements, continuing outreach to additional landowners that may be interested in enrolling in the project, and formalizing the NYS DEC carbon studies through presentations to key DEC staff members and designing the reports.

Influence on Positive Change

Within the Nature Conservancy, there is a large community of practice around forest carbon that will facilitate rapid adoption and scaling of the model to mitigate the impacts of climate change. Actively sharing the methods and results of this project within the Conservancy will allow additional areas of the country to benefit and quickly enroll smaller parcels of land into carbon markets. Further, this project provided an opportunity for NYSDEC to develop a deeper understanding of the potential carbon gains through improved forest management, with additional knowledge transfer via their programs within and beyond NY State.

Accomplishments

Deliverables

1.Forest acreage under improved management 10,000 Acres
2.Metric tons of carbon sequestered over a 10-year timeline3-400,000 CO2e
3.Additional DEC acreage evaluated for improved forest management through forest carbon scenario modeling (17,190 Acres) and spatial assessment of all state forest lands (1,004,174 acres).

The primary goal of this project was to increase small landowner access to carbon markets and demonstrate the opportunity to realize and measure increased carbon sequestration and storage through improved forest management throughout New York state. It should be noted that due to methodology changes, 10,000 acres of forest under improved management would sequester approximately 160,000 metric tons of carbon dioxide over a 10-year timeline, rather than our original estimate of 3-400,000 tons. Recent science that compares carbon project areas to non-carbon project areas supports a more conservative estimate of carbon sequestration and storage, typically at a rate of about 1 ton CO2e per acre per year. Other outcomes for this project include refining methods for using spatial data to rapidly evaluate carbon potential on new properties; and an overall assessment of a broader set of lands to help NYSDEC actively use state lands to improve carbon sequestration in NYS.

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Accomplishments to Date

Working Woodlands

Efforts from the beginning of the grant term to January 2024 were directed towards Working Woodlands projects. Changes to carbon project methodologies in early 2024 required the Conservancy to pivot project efforts from Working Woodlands to FFCP. In March 2025, we successfully enrolled Twin Rivers Council in FFCP, bringing close to 1,800 acres under improved forest management via the carbon market. Twin Rivers also conveyed conservation easements on the property, adding permanence and durability to carbon and protection outcomes. Grant funds did not support the land protection component.

To our knowledge, this is one of the first instances in the United States of combining the Family Forest Carbon Program with land protection. Building off this success, the New York TNC team has developed a new program called FFCP + Easements that combines hybrid forest carbon and protection, and is working with several land trusts across the state to develop more FFCP + Easement projects in the style of Twin Rivers.

Family Forest Carbon Program

FFCP achieved the goal articulated in our Grant narrative to aggregate smaller parcels and increase the number of acres and ownerships under improved forest management in New York.

Conservancy staff have conducted outreach to local conservation organizations, provided technical assistance, and performed site evaluations.

•In New York, 122 landowners are enrolled in the Family Forest Carbon Program, representing 16,008 acres.

oThis represents a 130 % increase in landowners enrolled and a 154% increase in acres enrolled in FFCP from October 2024 to October 2025.

•As a part of our efforts to increase landowner enrollment in the program, we hired an outreach forester to make landowner visits help explain and facilitate enrollment. From July 2023 to October 2024, the outreach forester made 50 landowner visits totaling 9,000 acres.

•We established a partnership with the Jefferson County Soil and Water Conservation District (SWCD) to increase the number of foresters available to make landowner site visits and facilitate enrollment. During the project period, Jefferson County SWCD met with 14 landowners and helped 3 landowners enroll.

•Our team presented at two landowner events, including a landowner forum with partner land trusts and a woods walk with Cornell Cooperative Extension. We estimate that more than 50 landowners attended these events.

•We established a partnership with Cornell Cooperative Extension in Columbia and Greene Counties to develop a series of webinars and web content to educate partners and landowners on forest carbon dynamics and forest carbon market programs.

Forest Carbon Modeling and Spatial Assessment of NYS DEC State Forest Lands

With DEC, we identified a 17,190-acre state forest management unit as the project area for carbon analysis. We determined four alternative management scenarios and modelled the changes in carbon sequestration and storage over 100 years under these alterative scenarios. A designed report summarizing the results for DEC is complete and has been presented to DEC leaders and regional staff from across the state in summer 2025.

We assessed current and past changes in carbon stocks on the 1,004,174 acres of State

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Forests, Multiple Use Areas, and Unique Areas managed by DEC. We constructed a database of state forest stand data, and identified and developed the unit of analysis based on management status and forest composition. We partnered with the Climate & Applied Forest Research Institute ("CAFRI"), a research team based out of the State University of New York's College of Environmental Science and Forestry, to access a data source that provided a full-state picture of carbon stocks from 1990 – 2019. A designed report summarizing the results for DEC is complete and a presentation to DEC leaders and regional staff was completed in the summer of 2025.

Quantities to Date

- Landowner Assistance - 214 Private forest landowners reached through technical assistance
- Stewardship / Forest Management Planning - 16,008 Acres under new forest management plans

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Deliverables in Progress

As of this grant report, the project team has met all the deliverables as stated in our scope change from June 2022.

-Forest acres under improved management: 16,008 acres are under improved management, and 1,749 acres are under improved management and permanent conservation, leading to an approximate 160,000 tons of additional CO2e stored and sequestered over 10 years.

-Working towards carbon sequestration deliverables through enrolling small landowners in FFCP.

o2,416 landowners have entered their information into the FFCP portal, totaling 279,714 acres.

o40 landowners have requested site visits, totaling 10,889 acres.

o47 landowners have received a proposal, totaling 9,834 acres.

o122 landowners have enrolled, totaling 16,004 acres.

-We developed used the most-up-to-date aboveground forest carbon data (2010) developed by Williams et al. (2020) to assess estimated carbon stocks on privately owned forest lands in two FFCP pilot counties (Rensselaer and Columbia) and applied these data and methods to assessing NYS Department of Environmental Conservation Working Forest Easements. We used these results to guide targeted landowner outreach efforts.

-We now use a combination of forest type data and the Williams et al. aboveground forest carbon data (2020) to rapidly and remotely assess the eligibility of privately owned forest for FFCP.

-We compared the distribution of aboveground carbon values of four different publicly available carbon datasets across all New York state forest lands.

-We evaluated a range of forest management scenarios in the Eminence Unit, a collection of NYS DEC State Forests, and determined the carbon stock implications of these different management scenarios in relation to baseline conditions. We have drafted a report and presented our findings to DEC staff across the state.

-We established a partnership with the Cornell Cooperative Extension to provide New York landowner outreach and education on the topic of forest carbon and carbon markets in general. An informational webinar series about forest carbon and carbon markets, aimed at landowners. Forest carbon and carbon market information is lacking from commonly used websites by New York landowners.

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Challenges

TNC is committed to developing carbon projects to the highest possible standard. In 2023, our team of carbon markets experts and scientists released a set of internal guidelines to ensure robust additionality and realistic baselines in developing carbon projects. Because of these internal changes, we submitted a change of scope for this grant to shift attention away from NYS counties to focus on private landowners, which would enable us to meet our standards for additionality and permanence while also developing financially viable projects. This affects the project partners we work with, but we do not anticipate that it will change the acreage of improved forest management or additional carbon sequestration deliverables.

Additionally, our team lost two key staff members during the grant term, one of whom was the driving force behind implementation of this grant. We have since hired new staff who have stepped in to pick up the project and advance its objectives.

Delays caused by COVID-19 have presented challenges to this implementation of this grant, from hiring and training, to scheduling needed meetings.

Last, changes to the voluntary carbon market writ large, and specifically changes to the ACR Improved Forest Management methodology, required a wholesale programmatic pivot from a model that depends on the sale of carbon credits (Working Woodlands) to a model that utilizes and scales an existing program (FFCP) to meet identical goals. This produced a pause, now resolved, in one major project that contributes significant acerage to this grant's 10,000-acre goal (Twin Rivers), and ultimately led to the development of a new program that combines FFCP and easements.

As a result of these challenges, we requested a no-cost extension on this grant to meet our ambitious goal of 10,000 acres of private land enrolled in improved forest management programs. The no-cost extension concludes in August 2026. However, at the time of this grant report, we have met the deliverables proposed in our June 2022 change of scope.

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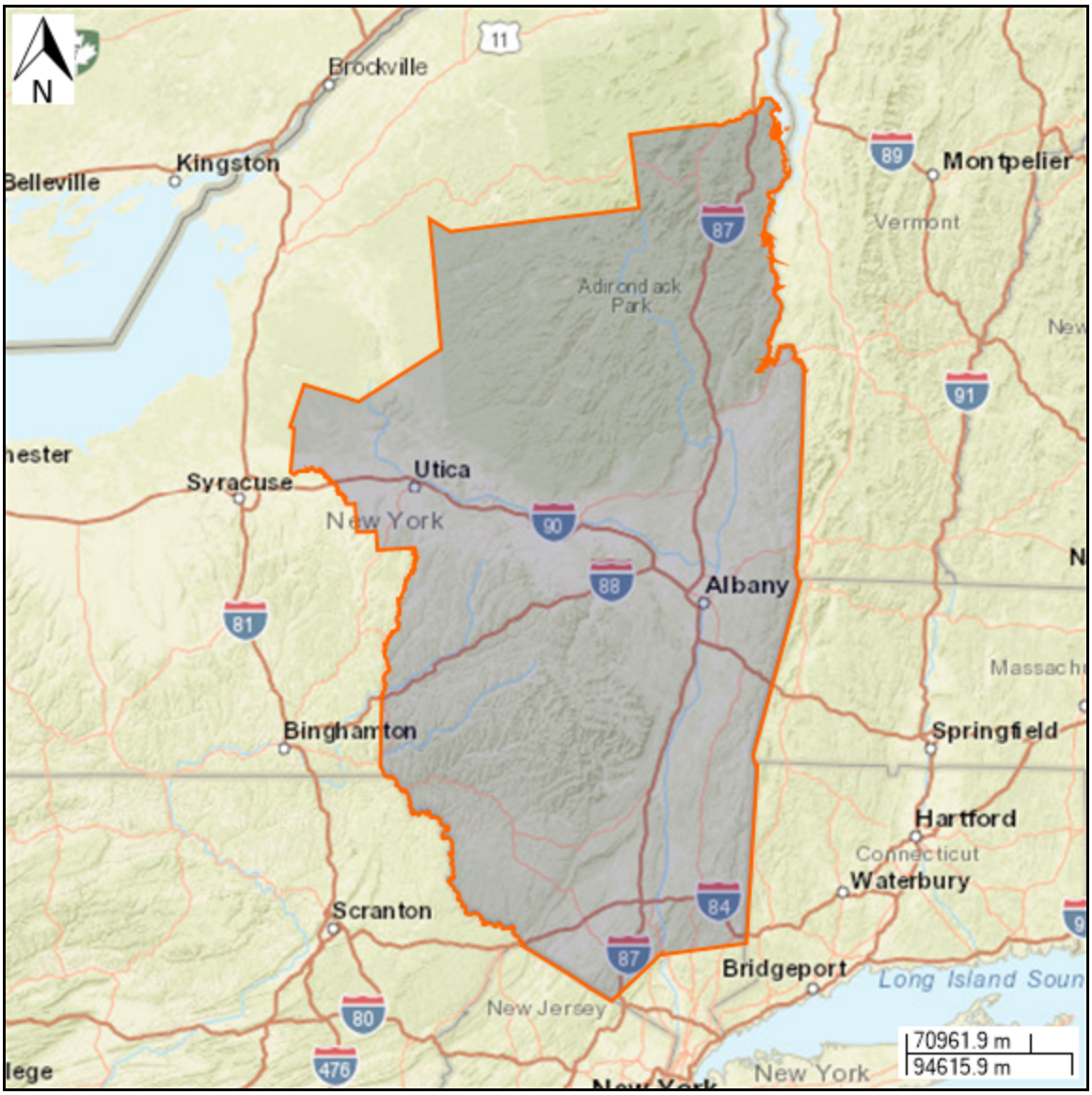
Impact Area



Information Last Updated
4/9/2026