Forest Carbon Market Solutions

A Guide for Massachusetts Municipalities

Mass Audubon
Protecting the nature *of Massachusetts*

dcr MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

Table of Contents

Recommended citation:

Freedberg, W. and S. Smith. 2021. *Forest Carbon Market Solutions: A Guide for Massachusetts Municipalities.* Massachusetts Audubon Society, Inc.

Glossary of Terms

Carbon offset/carbon credit: Standard, tradeable unit used to represent the removal of one ton of carbon dioxide from the atmosphere.

1 carbon offset/credit = the amount of carbon in 1 metric ton (mT) of carbon dioxide.

Additionality: Idea that forest carbon offset projects result in the storage or sequestration of more carbon than what would have been stored/sequestered without the project.

Baseline: Average amount of forest carbon stored and sequestered (measured in mT CO_2/acre) for a given location or region based on representative harvest or management activities.

Project developer: Consultant specialized in carbon markets, hired by landowners to help develop a carbon project.

Carbon registry: Database to track carbon credit registration, sales, and ownership to avoid double-counting. Typically run by organizations that also develop offset protocols.

Voluntary market: Market in which entities (often companies or individuals) elect to purchase carbon credits to offset their greenhouse gas emissions, but have no regulatory obligation to do so.

Regulatory market: Government market requiring polluting entities to limit their greenhouse gas emissions. If a regulated entity can't meet its emissions limit, it can buy or trade carbon credits with another regulated entity, or offset its emissions by purchasing credits from an entity that stores additional carbon. Also referred to as "compliance market."

Validation: Process conducted by independent, third-party organization to ensure that the carbon project plan is sound.

Verification: Process conducted by independent, third-party organization to ensure that the forest carbon stocking calculations as a result of the project are valid.

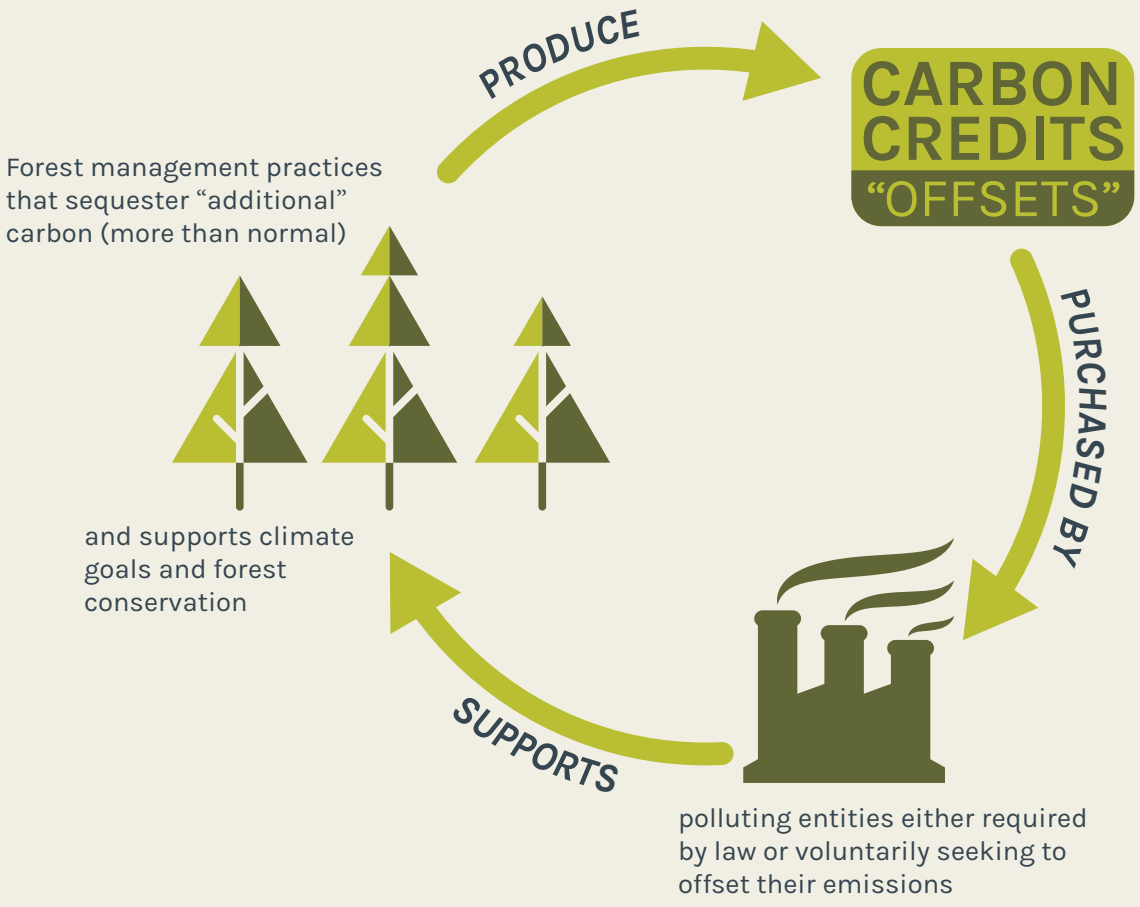
Carbon Storage in Forests

Forests hold immense value to the public and to the thousands of family and individual landowners in Massachusetts. Each landowner manages their forest differently—some seek to create wildlife habitat or preserve cultural values, while others value recreation or periodic income from timber harvesting.

Recently, carbon has emerged as an important consideration in land management. Though the science behind forest carbon is still developing, it's well understood that trees grow by removing carbon dioxide (CO_2) from the air and converting it into solid plant tissue in their trunks, branches, roots, and leaves. If a tree eventually decomposes or burns, the carbon that it stored is released back into the atmosphere as CO_2, one of several greenhouse gases that contribute to climate change.

Increasingly, companies are willing to pay landowners to store forest carbon to offset a portion of their own carbon emissions. The forest carbon offset market therefore represents a financial opportunity for some landowners, and its development may influence other management goals.

This publication provides an overview of current forest carbon market opportunities for municipalities and other interested landowners.



Graphic adapted from Robert Greenfield IV, 2018

Forest Carbon Markets

Landowners who manage their forests for carbon storage can sell a product called "**carbon offsets**" or carbon credits—one credit is equal to the amount of carbon in one metric ton of carbon dioxide.

Unlike other forest products like maple syrup or timber, carbon sold as an offset remains in the forest—but the landowner no longer "owns" it. Since the carbon in the offset is guaranteed to a buyer, future management activities are limited.

Companies buy carbon offsets to reduce their contribution to global warming: by paying another party to reduce carbon from a different source, companies "offset" carbon emissions from their own operations. This exchange lets companies count the carbon they're paying to keep out of the atmosphere against their own emissions.

Why purchase offsets? Often, companies or individuals offset their carbon emissions voluntarily to meet internal sustainability goals. These offsets are primarily purchased through a **voluntary market**—most companies participating in voluntary markets do not currently face regulatory requirements to reduce emissions but use offsets to reduce their carbon footprint.

In other cases, companies purchase offsets because there is a legal limit on their emissions. In the U.S., California operates the largest **regulatory market** in which companies buy and trade credits to comply with emissions limits.

Regardless of reason, carbon offsets come from a wide variety of projects designed to reduce greenhouse gas emissions, including renewable energy, methane capture, and forest management projects.

The three main types of forest carbon offset projects are:

- Improved Forest Management (practices that maintain carbon stocks above a baseline)
- Afforestation and Reforestation (planting trees)
- Avoided Conversion of Forest (avoiding development or other land use change)

For a carbon offset project to have value, it has to be **additional**—meaning that it must result in more carbon being stored than if the project never happened. Most of the time, this means comparing the outcome of managing a forest for carbon storage against a **baseline** scenario, which is normally defined by how nearby forest owners manage their land. Carbon offsets also have to be **verified**—meaning that a third party has to periodically check that nothing has negatively affected the carbon being stored, like a forest blown down or a landowner going back on the agreed management practices.

All carbon offsets bought and sold are listed in official databases, or **registries**, to keep track of offset sales and to prevent double-counting. In other words, carbon offsets are single-use: when a company emits an equivalent amount of carbon to the offset they've purchased, that offset is considered cashed in and cannot be re-used.

Are Carbon Offsets Really a Solution to Climate Change?

Virtually every scientific study of reductions in greenhouse gas (GHG) emissions needed to limit global warming to 1.5°-2°C shows that carbon removal by forests and other natural ecosystems must play an essential role, up to 30% of what is needed to reach net-zero emissions by 2050. Offset programs fund forest carbon storage and sequestration using funds paid by companies and others who seek to reduce their net contribution to GHG emissions. However, the approach is controversial, which can create some risks for projects. Two common criticisms of forest carbon offsets are worth examining when considering a carbon project:

Forest carbon projects typically determine the number of credits that can be sold by comparing the actual amount of carbon in the forest to a counterfactual scenario where more harvesting occurred. This means it is impossible to definitively prove that the amount of carbon stored and credited is additional to what would have happened without the financing from selling credits.

Critics of carbon projects have seized on this to claim that carbon markets are not providing a benefit to the atmosphere, since landowners may get paid for managing lands in a way s/he would have done anyway, resulting in no net carbon being saved.

Proponents of forest carbon offsets hold that even in cases where landowners were already managing their forest in a way that increased carbon stocks, carbon offsets provide an incentive for landowners to continue what they're doing, and that they should be rewarded for their efforts. Municipalities (and their project developers) should carefully research the details of protocols and methods used by different registries, and choose one that calculates the baseline scenario in a way they are comfortable with.

Other critics hold that carbon offsets create a structure that allows polluters to continue polluting. Forest carbon credits are designed to be a carbon-neutral proposition: the actions of the landowner neutralize the carbon dioxide that an offset buyer emits, but the transaction validates the polluter to emit an equivalent amount of carbon, neutralizing any climate benefits the landowner's actions would have had by themselves. Because of this, some landowners only sell offsets to fund conservation actions that would otherwise be financially impossible. Some municipalities may choose to commit to carbon-conscious forestry practices without selling offsets.

Proponents of carbon offsets argue that because there is no formal international system in place that requires companies to reduce their carbon emissions, polluters' emissions would exist whether landowners accept offset money or not.

Black-throated Green Warbler © Andy Eckerson

Wood Thrush © Kathy Porter

Benefits and Tradeoffs for Municipalities

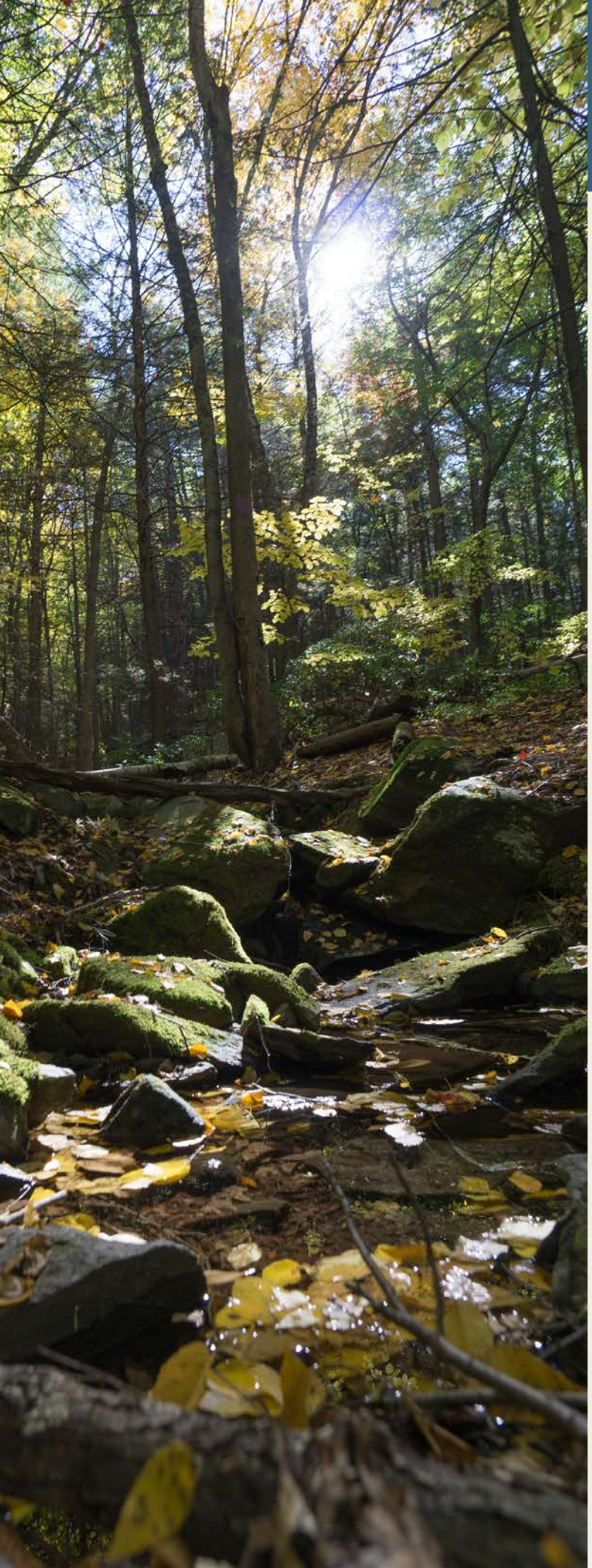
Municipalities considering forest carbon projects should examine how projects fit into broader land management goals for the town.

Depending on the forest management practices used for the project, co-benefits from managing lands for carbon generally include improved water quality, flood prevention, soil health, recreation, and improved wildlife habitat (particularly for mature forest bird species like Wood Thrush or Black-throated Green Warbler). These co-benefits are often priorities for municipalities, so forest carbon projects can offer a cost-effective opportunity to meet multiple goals.

However, carbon projects are not compatible with all forest management goals (for example, creating young forest habitat for upland game birds). In any case, municipalities should consider long-term goals for their forests and seek advice from foresters as well as a carbon project developer (consultants specialized in carbon markets) to understand which management techniques dovetail with the public's needs.

Forest carbon projects also involve a long-term administrative commitment. Although full-service project developers can be hired to design and implement the project, it is ultimately up to the landowner to guarantee that the carbon represented by the offsets remains in the forest.

To ensure carbon stocks, landowners follow a long-term forest management plan designed to maintain carbon above a specified level. Steep non-compliance fees are assessed in the case of a reversal—a reduction in carbon in the forest below the initial level. Landowners are also responsible for regularly scheduled forest inventories and project **validation** (about every five years) to demonstrate that carbon stocks are being maintained. Typically, landowners contract with the project developer to coordinate this work, and proceeds from the initial carbon sale can be put into a trust to pay for associated expenses. These responsibilities should be weighed against the revenue from the carbon sold, the immeasurable co-benefits of healthy forests, and the contribution to climate change mitigation.

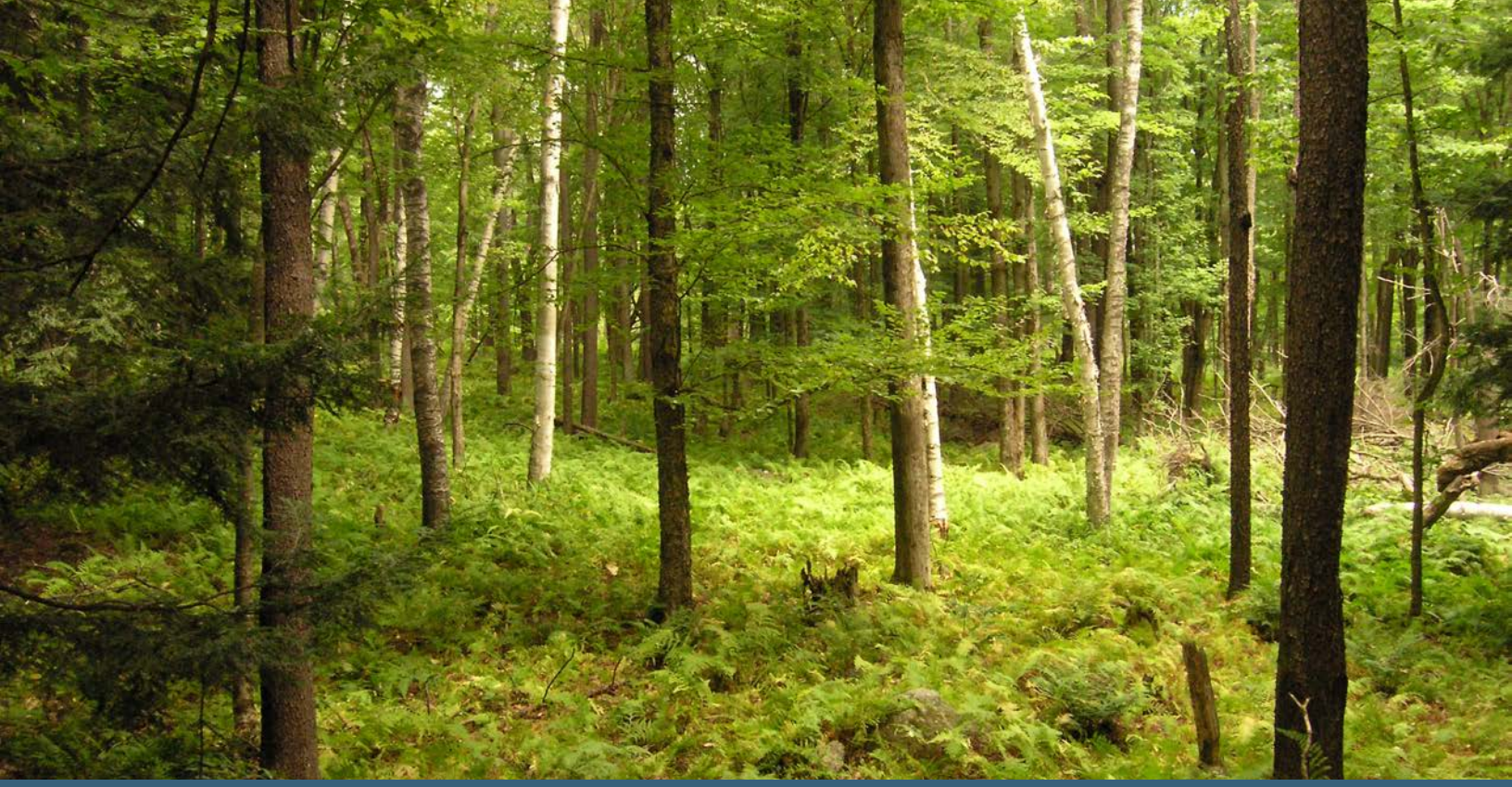


Working with a Project Developer

Working with a project developer will be critical for most municipalities. **Project developers** are consultants specialized in carbon markets. They provide guidance on what type of carbon project to pursue (i.e., reforestation or improved forest management), how to align the project with other municipal land management goals, and which protocols and registries are most appropriate. More importantly, project developers are responsible for executing most aspects of a project, such as arranging for the forest carbon inventory, modeling and quantifying the carbon benefit of the project, securing third-party verification, registering the project, and providing overall project management.

Many project developers also act as project investors by fronting the cost of project development. In return, they receive a share of the credits as compensation (this can vary widely depending on project size and other factors). Finally, project developers can connect carbon sellers (municipalities) with buyers, and help negotiate a desired price at which to sell the credits. Particularly knowledgeable landowners with sufficient project management capacity may choose to hire consultants for technical assistance (instead of a project developer for start-to-finish guidance), but this is unlikely to be a good route for most municipalities. Developers provide good value to municipalities by assuming risk and bearing responsibility for the success of a project.

As part of due diligence before entering into an agreement with a project developer, municipalities should compare a few developers' fees and approaches. Municipalities should ask questions about how their deal will be structured and what the municipality's responsibilities will be after the carbon project development concludes.



What Makes a Successful Carbon Project?

Size

At least 5,000 acres is ideal. Projects less than 3,000 acres are generally not financially viable in New England, as project development costs will outweigh revenue. Smaller properties can still enter the market by joining an aggregated project that includes multiple landowners, although these projects are more complex, and may need as many as 6,000-8,000 acres to be viable.

Finding a Buyer

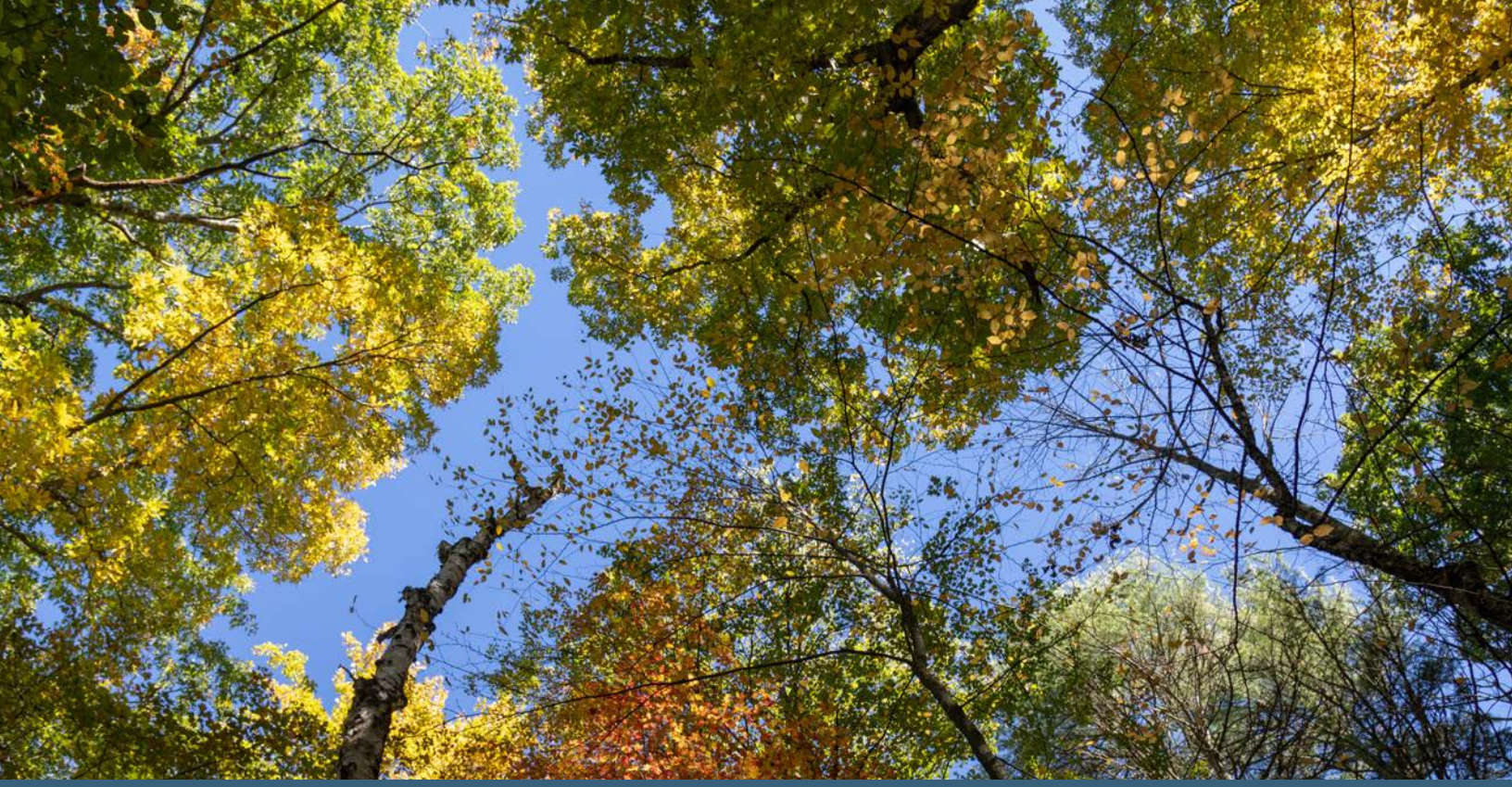
While some landowners choose to develop a forest carbon project without a buyer in mind for the credits generated, it is generally advisable to have a buyer committed to purchasing the credits ahead of time. This reduces the uncertainty and risk associated with developing the project.

Existing Restrictions

Limits on harvesting, such as in deed restrictions, conservation restrictions, or legal statutes will also affect whether forest carbon can be sold. Generally, a landowner won't get paid to maintain standing trees if the law prohibits them from harvesting timber anyway.

Forest Stocking

The amount of carbon held in the trees on a property will also affect the project's profitability. For example, a northern hardwood forest with large trees and diverse structure will always store more carbon than a coastal ecosystem dominated by scrub oak. Existing inventory data can yield a rough estimate of carbon storage useful for early project development, but any third party responsible for verifying the carbon stocks will eventually require a more precise, project-specific inventory.



Municipal Capacity

Municipalities must be able to commit to a decades-long effort and must be comfortable entering into legal agreements that lay out that commitment. Even with a project developer involved, the landowner (and any partners) will still need to manage and monitor the project over its lifetime. Projects with multiple partners require establishing each party's responsibility for the project and establishing how project risks will be distributed. To legally coordinate this effort, aggregated projects typically require all parties to sign a participation agreement outlining responsibilities and risks.

Legal Support

It's advisable to get legal counsel knowledgeable about carbon markets before entering into agreements with developers and registries. Traditional carbon offset projects involve decades-long contracts with external parties, and municipalities may encounter legal issues related to indemnification clauses in Massachusetts. The Tri-City carbon offset project provides an example of a successful municipal project, with the legal support critical to project success (see page 13).

Setting the Groundwork

An important first step when considering a carbon project is to confer with all boards and committees involved in municipal land management and to initiate a public review process. Open dialogue between groups is critical given the large acreage needed for carbon projects.

Beyond this, interested towns should work to gather resources to determine project feasibility (Table 1).

Forest Management Plans (FMP) and forest inventory data are used by project developers to conduct a feasibility study (often at no cost or obligation to the town). Many towns already have FMPs for municipal property that outline management goals and include merchantable timber volume. For a feasibility study, it's important for towns to have data that captures a fuller picture of carbon in the forest.

Table 1: Resources needed to determine forest carbon offset project feasibility

Resource	What is it?	Our municipality does not have this. How do I access it?
Legal Documents	Legal agreements for each parcel of land under consideration for carbon offset project that limit or restrict development and harvesting (e.g., conservation restrictions, deed restrictions)	Work with municipal officials to gather legal agreements for all interested landowners
GIS Spatial Data	Spatial data (shapefiles) that display land use, municipal/private boundaries	Work with municipal staff to digitize this if need be, and/or reach out to MassGIS for publicly available data
Forest Management Plan	10-year plan developed by a licensed forester and certified by the state to manage forested property for conservation, recreation, wildlife, etc. Recommended Forest Inventory Data (timber cruise plus tree height measurements to 4" top, snags and coarse woody debris)	Reach out to a licensed consulting forester or local DCR Service Forester to learn more and receive a free field visit to talk about developing a plan and possible cost-share opportunities
Staff Capacity	Staff time and effort needed to bring a project to life and to meet monitoring and management requirements over the project lifetime This may require a forester, surveyor, outside counsel, title researcher, etc.	Work with municipal officials to meet these needs (e.g., budget for a new position, adapt responsibilities for current staff, allocate funds to hire consultant, etc.)
Public Approval	Public process to solicit input and inform residents before any decisions are made and throughout the project process	Confer with all boards and committees involved in municipal land management; host regular public meetings

Carbon Offset Project Development

Following an initial feasibility study, the process to sell forest carbon includes multiple steps and may take several years. There are also specific tasks that a municipality must complete over the project lifetime.

Table 2: Process to develop forest carbon projects

Average Time	Major Tasks	Responsible	Notes
Project Feasibility*: ***1 – 2 Years***	Determine Municipal Feasibility*	Municipality and Project Developer	Determine municipal interest, hold public meetings, compile legal documents and initial carbon stock estimate, identify potential carbon buyers
	Enlist Project Developer	Municipality	Consult with various project developers to find best fit for approach, protocol, timeline
Project Development: ***1 – 2 Years***	Full Carbon Inventory and Analysis	Project Developer	Establish permanent field plots in project area, conduct precise inventory of forest carbon stocks, determine additional carbon above baseline
	Baseline Development and Modeling	Project Developer	Develop and model baseline carbon for the parcel based on protocol methodology
	Third-party Verification	Project Developer	Developer enlists a third party to check the numbers
Registration: ***1 Month***	Register Project	Project Developer	Project is officially listed on registry and credits are issued
Sales: ***Up to 1 Year***	Credit Sales	Project Developer	Depending on earlier networking, could be a short or long process
Crediting Period: ***Depends***	Payouts to Landowners	Registry and Project Developer	This takes place over the crediting period of the project (depends on protocol)
Project Lifetime: ***40 – 100 Years***	Ongoing Tasks	Municipality (and sometimes Project Developer)	Management continues as outlined in project design. Periodic re-inventory and verification of the carbon stored (every 5-12 years depending on registry/size of project). Depending on contract, project developer may continue to handle these tasks.

*Mass Audubon is available to assist municipalities with this step

Timeline adapted from the Land Trust Alliance, 2020.

Expectations for Revenue and Costs

Forest carbon projects can cost hundreds of thousands of dollars to implement, but can net landowners many times this in revenue.

Typically, project developers front the cost of project development and are compensated with a percentage of the credits generated by the project. This normally ranges from 20%-30% of the total revenue of the project.

Project revenue depends largely on the amount of additional carbon generated by the project, as well as the price at which credits are sold. Many factors influence credit pricing on the voluntary market, including buyer confidence in additionality and permanence, co-benefits, and the "story" or connection with the buyer. Often, buyers are willing to pay a premium for "local" credits.

Major project development costs and average revenue expectations are listed below. Conducting a forest carbon inventory is particularly specialized and requires independent verification by a third party, both of which are costly. Municipalities should work with their project developer to carefully select a consulting forester experienced in this methodology. There are also additional costs related to project management, carbon stock modeling, and documentation, as well as internal legal and management costs. As the carbon market evolves, these costs will likely change. For example, as more foresters become familiar with forest carbon inventory and technology advances, these costs could come down.

Table 3: Costs and revenue for forest carbon offset projects

Major Costs	
Forest carbon inventory (small project)	$30,000 – $100,000
Verification of carbon stocks	$40,000 – $65,000
Registry fees for credit issuance/transference (depends on registry)	$0.17 – $0.22 per mT CO_2e
Revenue	
Carbon credit prices	Voluntary market: $6 – $8 per mT CO_2e on average Compliance market: $13 – $14 per mT CO_2e on average

Risks with Developing a Forest Carbon Project

While most forest carbon projects produce revenue for landowners and project developers, there are some risks. Municipalities should work closely with their project developer to assess and plan for each type of risk.

Development Risks

Some of the early stages of carbon project development will incur costs before it's guaranteed that the project will generate income. Most of the time, a project developer will assume this risk instead of the landowner—in exchange for a share of the offsets or eventual revenue.

Invalidation Risks

Carbon offsets risk being invalidated if, after the offsets have entered the market, inventory data shows that the initial volume of offsets was overestimated. This risk is low, because projects are subject to validation and verification by an independent third party before offsets are issued.

Market Risks

Carbon credit sales can take a year or longer to complete. The price of carbon could potentially drop over that period, leading to less project revenue than anticipated. Some developers reduce this risk by pre-selling offsets at current market rates—but this also precludes selling credits at a potentially higher price in the future. Since the carbon market is relatively new, carbon pricing could fluctuate as policy and regulations change.

Reversal Risks

If part of a forest is lost to ecological threats (wind, fire, pests, or disease) or to a human decision (development or harvesting), it can become a source of atmospheric carbon. Carbon projects hedge against ecological damage by setting aside at least 15%-20% of the offsets generated by the project in a "buffer pool" or safety net that can be accessed in cases of unintentional loss. In the event of an intentional reversal, where a landowner reneges on a project agreement, the municipality (as project proponent) is required to reimburse the registry for the credits lost. Additionally, if any kind of reversal reduces carbon stocks below the established baseline, the project is automatically terminated.

Best Options for Municipalities

Single Landowner

Most Massachusetts municipalities will need to partner with other towns to create a financially feasible carbon project. However, some towns with more than 3,000 acres of well-stocked, inland forest may own enough forest carbon to sell offsets by themselves.

Black-throated Blue Warbler

Aggregation of 2 – 3 Landowners

Multiple landowners that together own between 6,000 and 8,000 acres of forest could partner to develop an aggregated carbon project. Interested municipalities should consult towns with which they have a good working relationship and similar management practices. These aggregated projects demand strong leadership and administrative capabilities from at least one municipality, legal agreements that clarify responsibilities, and a will to cooperate on the part of all partners.

The Tri-City project is one example of a successful partnership between three towns with some abutting properties and the same forester (see page 13). Projects between municipalities and non-municipal landowners are also possible, but add another layer of complexity. The Nature Conservancy's Forest Carbon Co-op model (multiple private landowners) and the King County (WA) Rural Forest Carbon Project (municipal and third-party landowners) offer examples of successful projects involving multiple landowners.

Porcupine © Kelly Norcross

Bobcats © Renata Gilarova

Leading the Way: Tri-City Improved Forest Management Project

In 2014, West Springfield, Holyoke, and Westfield collaborated on the Tri-City Improved Forest Management Project. Designed as an aggregated project, the three cities together registered nearly 13,500 acres of municipal forestland for carbon crediting on the American Carbon Registry (ACR). In addition to the climate benefits of healthy forests, the cities were interested in the project's co-benefits, including improved municipal water quality and recreation.

How did the project come to be? In 2015, West Springfield initiated project exploration, an effort that involved multiple municipal staff members and the services of a consultant. Following this, local leaders secured a $100,000 grant from the Executive Office of Energy and Environmental Affairs to cover the costs of hiring a project developer.

Each city committed to managing carbon stocks on enrolled forestland above a baseline level for 40 years under the ACR requirements. Some sustainable timber harvesting is planned to take place in Holyoke and West Springfield, and recreational trails will remain open on all lands.

Project success depended on several factors: aggregating land to divide the cost burden, strong partnerships between local and state government, use of the same forester, and a solid understanding of the legal requirements. Legal issues arose around the ability of Massachusetts governments to indemnify private entities, but the issue was resolved and there is now a clear path for municipal aggregation under ACR.

After five years of work, the Tri-City project is expected to offset roughly 242,000 tons of carbon in the next 10 years. It's also anticipated to generate $100,000 per year for Westfield and Holyoke, and $30,000 per year for West Springfield—regular income that can fund additional conservation projects for years to come.

Small Landowner Programs

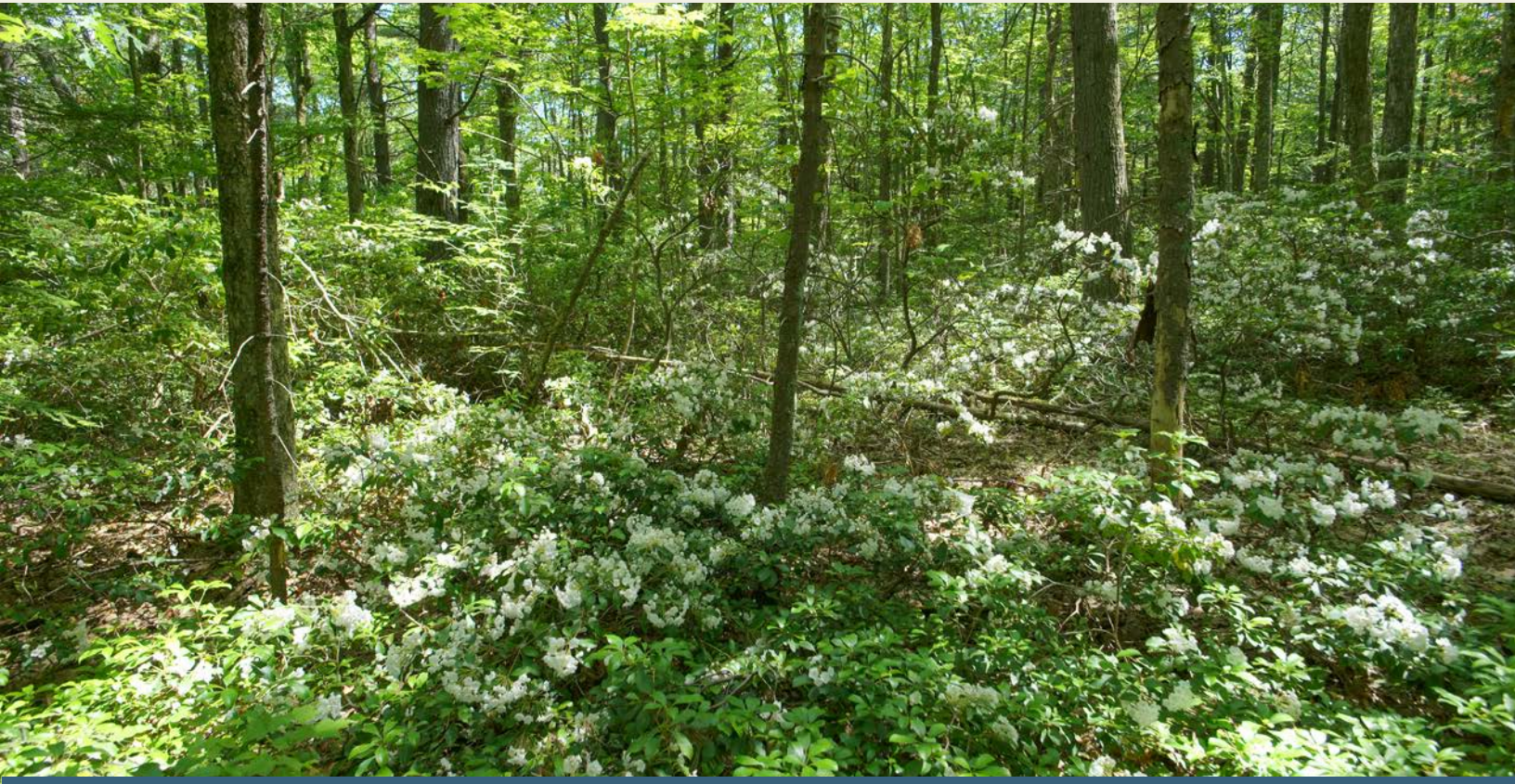
For municipalities without the required acreage or the administrative capacity to enter the carbon market on their own, small landowner programs offer an alternative approach. Some of these programs are designed as payment-for-practice programs, in which a nonprofit, private company, or government agency pays landowners to implement forest management practices for carbon sequestration or climate resiliency.

These new small landowner programs are effectively aggregated offset projects on the voluntary carbon market. Over a shorter contract period, landowners grant carbon rights to a private company or nonprofit and receive payments for implementing carbon storage practices. The company or nonprofit assumes responsibility for administrative tasks like project verification, inventory, and monitoring, and also shoulders much of the risk for invalidation and reversal. As a result, payments are often lower than what a landowner could net under a standalone project. However, these new programs remove many of the funding and capacity barriers that traditionally prohibit small landowners from participating in carbon markets.

Although most emerging small landowner forest carbon programs are not currently open to municipalities, they present a financial opportunity for municipal residents. Programs offer many benefits that should be carefully considered when debating the various carbon project approaches:

- Shorter contracts
  (1-40 years depending on the program)
- Small minimum acreage requirements
  (30+ acres)
- Minimal to no upfront costs or special administrative capabilities
- Well-developed regional carbon and adaptation management practices

For some towns, the process to develop a carbon project may not come to fruition. However, going through even the initial stages of project development offers benefits to municipalities. There is value in community discussion or recognition of carbon storage in town land management, and it's also useful to quantify carbon levels on town land to understand and develop strategies to reduce municipal emissions locally.



Next Steps for Municipalities

It's critical for municipalities to educate themselves as much as possible about the carbon offset field before developing a project. This is a fast-moving field and new opportunities arise frequently. Municipalities that have well-articulated goals, a management plan, and good data on their forests will be positioned to take advantage of these new opportunities.

For Towns Interested in Exploring a Carbon Project

Contact Mass Audubon to learn more about municipal carbon projects: Through a partnership with the DCR Working Forest Initiative, Mass Audubon is available to provide free consultation to towns interested in carbon markets on:

- Understanding carbon markets
- Initial project feasibility (determining interest and goals, assessing municipal resources, evaluating different project approaches)
- Connecting with the right professionals (project developers, foresters, legal counsel)

For more information, please email Mass Audubon at climateforestry@massaudubon.org.

Connect with project developers to explore project feasibility: If your municipality has a forest management plan, good data on its forests, as well as support from the community for a carbon offset project, you may want to connect with a project developer to learn more. Contact Mass Audubon for additional technical resources on the early stages of project development:

- List of project developers and contact information
- Suggested questions to ask or think about when speaking to a project developer
- Comparison of different carbon market registries and protocols

Options for Climate-Smart Forestry

Alternatives for Towns Currently Unable to Pursue Carbon Markets

Develop a Forest Stewardship Plan (FSP) or climate-focused stewardship plan for municipal forestland to support future enrollment in forest carbon programs.

- You may be eligible for a Community Forest Stewardship Implementation Grant (75-25 matching reimbursement). Please contact Michael Downey, Program Coordinator at DCR, for more information (978-368-0126 ext. 129).

Enroll your property in Foresters for the Birds: Foresters for the Birds is a joint program between DCR and Mass Audubon to help protect bird species that depend on healthy forest habitat. As part of your town's forest stewardship plan, you might consider hiring a trained forester to conduct a Bird Habitat Assessment to evaluate existing and potential bird habitats.

- Cost-share assistance is available for municipalities (rates depend on acreage and if the assessment is part of a new or existing FSP or Chapter 61 management plan). For more information, please contact Michael Downey, Program Coordinator at DCR (978-368-0126 ext. 129).

Explore small landowner program options for your community. Contact Mass Audubon (climateforestry@massaudubon.org) to learn about the different programs available to municipal residents.

Apply for an MVP Planning or Action grant: The Municipal Vulnerability Program (MVP) is state grant program for towns and cities to improve their resilience to climate change, including forest resilience. Grants are available yearly and can be planning focused ($15,000-$100,000) or action-oriented ($25,000-$2M; 25% match required). For more information, contact your MVP Regional Coordinator.

Authors

William Freedberg, *Mass Audubon*

Samantha Smith, *Mass Audubon*

Editors/Contributors

Joshua Rapp, *Mass Audubon*

Jeffrey Ritterson, *Mass Audubon*

Tom Lautzenheiser, *Mass Audubon*

Michelle Manion, *Mass Audubon*

Heidi Ricci, *Mass Audubon*

Jennifer Fish, *Massachusetts Department of Conservation and Recreation*

Michael Downey, *Massachusetts Department of Conservation and Recreation*

Alison Wright-Hunter, *Massachusetts Department of Conservation and Recreation*

Sarah White, *Massachusetts Department of Conservation and Recreation*

Jim Rassman, *Massachusetts Department of Conservation and Recreation*

Lisa Hayden, *New England Forestry Foundation*

References

California Air Resources Board, 2020. "Summary of Transfers Registered in CITSS By California and Québec Entities in 2020." Retrieved from: https://ww3.arb.ca.gov/cc/capandtrade/2019transfersummaryfinal.xlsx

Chiang, C., J. Remucal, and S. Wescott. 2020. "Carbon Markets: Are they right for your land trust?" https://www.landtrustalliance.org/publication/carbon-markets-are-they-right-your-land-trust

Rapp, J., T. Lautzenheiser, and C. Rockett. 2020. "Forest Carbon Market Opportunities for Massachusetts Municipalities."

Funding for this publication was provided through the DCR Working Forest Initiative.