Carbon credits program more popular as a means to address climate change

Forestry workforce may be affected by sale of Connecticut Lakes Headwaters Working Forest to Bluesource Sustainable Forest Company

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Connecticut Lakes Headwaters Working Forest (courtesy photo)

Enlistment of the nation's forests in the effort to mitigate climate change has cast a shadow over the future management of the largest unbroken expanse of privately owned forest in the state and with it the fortunes of the foresters, loggers, sawyers and truckers who earn their livelihood in the woods.

The forest

The Connecticut Lakes Headwaters Working Forest is the jewel in the crown of New Hampshire, 171,500 acres at the northernmost tip of the state in the towns of Pittsburg, Clarksville and Stewartstown. The largest unbroken expanse of privately owned forest in the state, it is home to the four Connecticut Lakes, the headwaters of the Connecticut River, and a buckle on the belt of the Northern Forest stretching across 26 million acres from DownEast Maine to Lake Ontario.

When International Paper Company put its 171,500 acres on the market in 2001, a coalition of conservation groups, led by the Trust for Public Lands partnering with state and federal agencies, arranged for the state to acquire a conservation easement on the property. The easement protects the property from development, prescribes how it is used and managed, and specifies the rights and obligations of the state and the landowner.

At the same time, of the original 171,500 acres, 25,100 acres were conveyed to the state — 25,000 acres managed for wildlife habitat and 100 acres to enlarge the Deer Mountain Campground.

The easement ensures public access to the property for a variety of traditional recreational activities — hiking, hunting, fishing, trapping, snowmobiling on designated trails and other motorized travel on designated roads — while confining "non-forest activities" to not more than 10% of the property.

Along with conserving open space, protecting natural resources and fostering wildlife habitat, the easement affirms that foremost among its purposes is "to retain the property as an economically viable and sustainable tract of land for the production of timber, plywood and other forest products." Likewise, the easement expressly sanctions "forest management activities" described as "practices including the cultivating, harvesting and removal of any and all forest products by any and all current and future harvesting and removal techniques."

Monetary value

For centuries, forests derived their monetary value from cutting timber. But, the effort to address climate change has lent forests another value stemming from their capacity to sequester and store carbon.

Trees sequester carbon by capturing CO_2 from the atmosphere, which with water and sunlight fuels their growth through photosynthesis. As trees grow, they capture carbon at a slowing rate as they approach maturity when they become stores of carbon, which represents half the dry weight of wood. While growth above ground holds the largest share of carbon, carbon is also harbored in tree roots, fallen trees, leaf litter and the soil.

Forests sequester about twice as much carbon as they emit and serve as carbon sinks. In 2020 the U.S. Forest Service estimated the ton of forest carbon per acre in New Hampshire had reached 87 by 2018, 42% of it in above-ground growth and 38% in forest soils. At the same time, when trees are harvested, processed and fashioned into solid wood products ranging from lead pencils to furniture and building materials, such as two-by-fours and plywood sheets, their carbon content is stored for the life of the product, which may be hundreds of years.

Carbon markets

Although the first United Nations Earth Summit in 1992 broached the idea of using carbon offsets to address climate change, the first sales of forest carbon offsets occurred in 1989. In the U.S., forest carbon offsets have become a commodity, monetized and traded as credits and offsets on carbon markets since the California greenhouse gas cap and trade program began around the turn of the century. More recently these markets have grown as corporations in virtually every sector of the economy seek to burnish their environmental, social and governance (ESG) credentials.

There are two different carbon markets, a compliance or mandatory market and an unregulated voluntary market.

The compliance market is governed and overseen by government agencies, but only the market administered by the California Air Resources Board serves the Northeast. The board sets an acceptable level of emissions — the cap — for power plants and factories in California measured in metric tons of carbon (CO_2e), and assigns credits of equivalent value (CO_2e) to each member of its network. Those emitting less than their cap become sellers of credits and those emitting more than their cap become buyers. Other projects, called offsets, are derived from forests and other net sequesters of carbon both within and beyond California.

The voluntary carbon market matches corporations, governments and nonprofit organizations that choose to reduce their emissions with developers of projects that remove or reduce carbon and greenhouse gas emissions. Projects include producers of renewable energy like wind and solar power and measures to reduce emissions as well as investing in reforestation and managing forests to capture and store carbon. Although the market is not directly regulated, third party organizations, so-called "registries," verify that projects meet their stated objectives. Credits are sold through brokers on an open market.

In 2003, there was no market for carbon in the United States. Consequently, when it comes to managing the Connecticut Lakes forest for the sequestration and storage of carbon and trading in carbon credits, the easement is silent.

Last year, the Connecticut Lakes Headwaters Working Forest was purchased by Bluesource Sustainable Forest Company (BFSC), along with other holdings of the Forestland Group. With a million acres under management, BFSC describes itself as "the largest private forestland owner focused entirely on climate mitigation."

In 2021 BFSC entered a joint venture with Oak Hill Advisors, an investment subsidiary of T.Rowe Price with $500 billion in assets, to purchase forest lands, including those in New Hampshire. At the time Roger Williams, president of BFSC, told Reuters the partnership would "enable the company to move beyond developing projects that generate carbon credits to becoming an asset manager of forest lands."

Last year BFSC merged with Element Markets, which is majority owned by TPG, Inc., an alternative investment manager, calling itself "the largest originator and marketer of carbon and environment credits in North America."

Carbon, timber and the forest economy

"There is a societal and climate benefit associated with harvesting forests less intensively and there are markets that exist today that reward long-term management behavior," Williams told Reuters. BFSC has registered the Connecticut Lakes Realty Trust property with the Emissions Trading Scheme administered by the California Air Resources Board.

In managing the forest to generate income from the sale of carbon credits BFSC intends to reduce the harvesting of timber to capture the value of carbon in standing trees. With a choice of two values to tap, deciding how much to harvest hinges in part on the relative prices of cut timber, expressed in board feet and tons, and standing trees, expressed in metric tons of carbon.

The owner of a carbon project can choose to sell carbon from the annual net growth on the forest or to sell harvested timber, or to both. The last year the Forestland Group owned the property they harvested some 29,000 cords of the 45,000 cords of net growth while also selling $2 million with of carbon offset credits.

Patrick Hackley, director of the NH Division of Forests and Lands, recently informed the Connecticut Lakes Headwaters Citizens Committee that BFSC has filed an operating plan for the forest for the year May 1, 2023 to April 30, 2024. "We are now in the review process with our forestry staff and the state Attorney General's office to ensure the new harvesting plan complies with the purpose and all provisions of the conservation easement."

Meanwhile, BFSC officials have indicated that they intend to reduce timber harvests by more than half of what has been cut in recent years. When the Pittsburg Board of Selectmen met recently, Shawn Hagan, BFSC's senior director of forest operations, said between 12,000 and 14,000 cords would be cut for year ending April 30, 2024, less than half the average of 29,000 to 30,000 of the past five years.

Effects on workforce

The impact on the town of Pittsburg, home to the largest share of the forest, is significant and measurable. More than halving the timber harvest will shrink receipts from the timber tax, levied at 10% of the stumpage value when a tree is cut, by an estimated $175,000, representing nearly 10% of the town's $2.2 million budget. BFSC officials have indicated they intend to work with the town to address any shortfall in revenue from the tax.

The economic effect of less timber harvesting will be to shrink employment and investment in the traditional forestry industry while transferring a significant share of the income generated by the forest from the foresters, loggers, truckers, mechanics and sawmills to the traders in the carbon market.

Ray Berthiaume, the Coos County Forester with the UNH Extension who has worked in the forest for four decades, compared the economic impact to the closing of the paper mills.”If the timber harvest is cut in half, the logging workforce will decrease by half,” he said. “The loggers, sawmills, truckers, mechanics, equipment dealers and fuel dealers are all affected. What are they going to do?” he asked.

“it’s here already,” said Steve Halle, operations manager at Milan Lumber, LLC, the state’s largest sawmill with 55 employees and 200 loggers on its list producing 70 million board feet of lumber a year. In 2021, the company invested $15 million to expand and modernize operations.

“There’s no wood coming off that land,” Halle said, adding that the mill lost 10 million board feet of lumber in the past year. “It hurts,” he remarked. “Everybody’s hurting, the loggers, truckers and the mills.” He said Ethan Allen, the furniture maker, was short of wood for its sawmill at Beecher’s Falls.

Seth Roppe, who buys wood for Milan Lumber, said without wood from the forest it will have to be sourced from further afield in Maine, Canada and New York. “Then we’re competing against other mills,” he said, “and I won’t know what I’m competing against and then there’s the cost of getting it here.”

Roppe described the carbon market as “the Wild West; the Gold Rush of the woods.” He said, “The pricing is not transparent. I don’t know what my competition is, so I’m bidding blind. It’s scary.” He said, “The scariest part is that contracts in the carbon market may be for 99 years. They’re locking up the forest for 100 years. It’s jaw-dropping.”

CoCo Amey, manager of the Amey Log Yard, on Indian Stream in Pittsburg, said that shortage of logs is crippling the business. The yard buys and processes logs, primarily spruce and fir, for shipment to sawmills, as well as sells a wide a variety of mulch spun off from processing logs. She said if the yard continues to lose 10,000 logs a month “I’d be closed.” As for Bluesource, she asked, “if they’re in California, why should they come to New Hampshire?”