Compensation to the Landowner

Compensation to the landowner ranges from $12.50 to $20 per acre per year on average, but some of the programs pay for only part of the time the land is restricted.

Organizer	Finite Carbon	Forest Carbon Works	AFF/TNC
Min Size (ac)	40+	40+	30+
Forest Types	All	All	Beech, N. Hardwoods
Current Use Compatible	No	Can be	Can be
Serves RI	By end of 2023	Now	Possibly 2024
Obligation Term (yrs)	40	60	20
Uses Limited	No cutting, some exceptions	Cutting: Must cut less than growth, other limits	Manage to increase carbon, forest health; Up to 20 % cleared (<15% BA)
Requires Enrolling All Land	No	Yes, & lands purchased later must have forestry plan approved too	No
$/Acre Ave	Market Specific	$20.00	$12.50
Payment Term (yrs)	40	25	20
Total Compensation	?	500 per ac	250 per ac

Property that remains enrolled in current use programs will still require management plans to be submitted regularly. One carbon program actually provides funds for foresters to adapt existing management plans to the carbon requirements. Monitoring the property for compliance with the carbon restrictions is done by the carbon program organizations.

Using the carbon calculation spreadsheet can help determine the utility of carbon programs for your clients' properties. Your existing stocking data and figures like trees per acre and quadratic mean diameters will help determine the growth capacity of the forest sequestration. The spreadsheet combined with your existing standing timber data will show how much carbon storage is currently on a property.

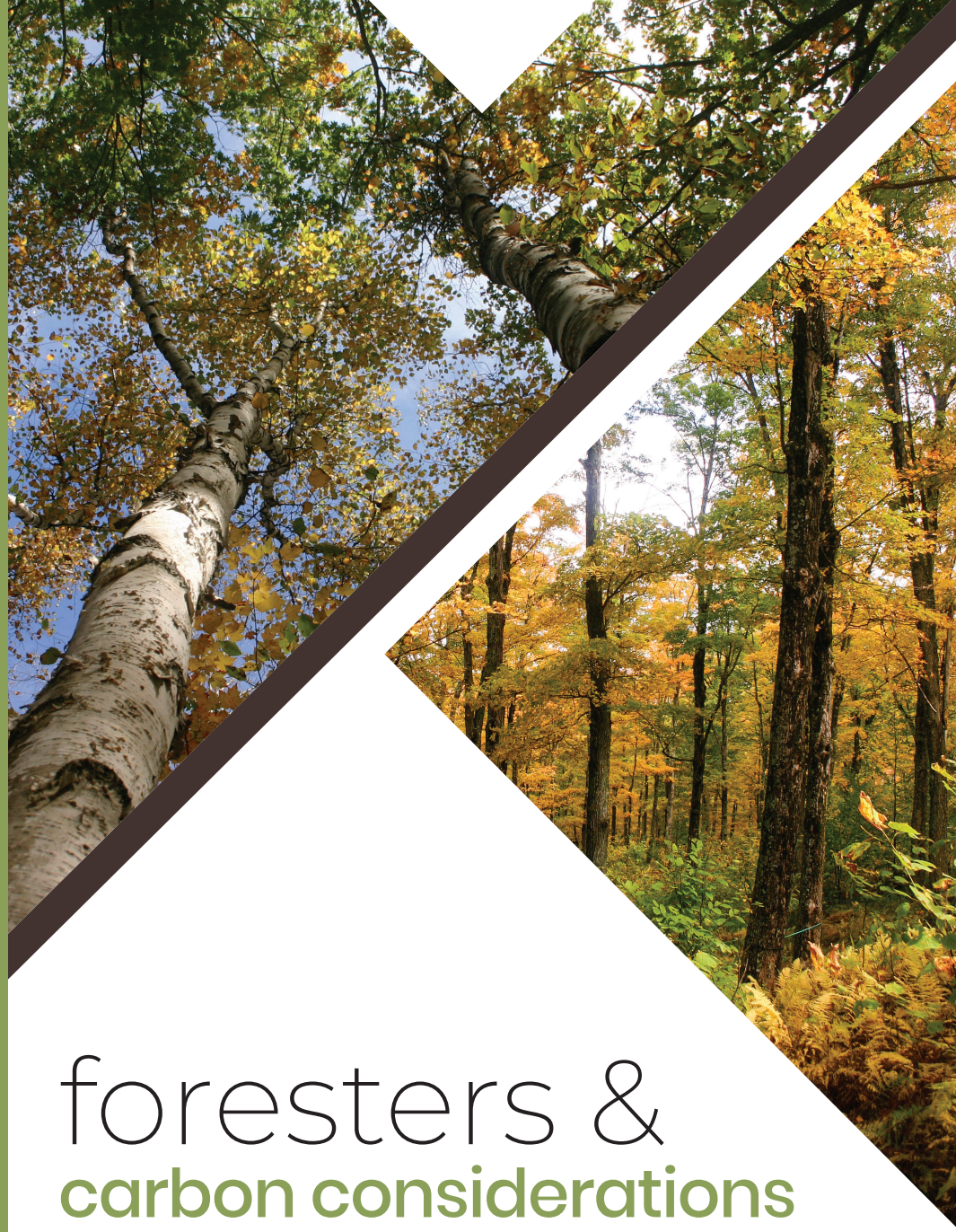
Just enter in the basal area of a stand in the blue cell in the spreadsheet, and it will calculate the tons per acre of carbon present for the various forest types.

Carbomatic	
Enter the basal area (ft/ac)	**100.00**

Use the appropriate column according to your ecoregion	Lowlands & Islands	Coastal Lowland	Coastal Hills & Plains
Tons per acre (Carbon)	31.70	39.19	36.38
Percentile	21%	40%	42%

Having a rough sense of both of those figures helps you figure out what makes most sense in terms of how either sequestration or storage could be increased over a given period. Often, large diameters signify greater revenue per stem when they are harvested after carbon program participation, making harvest deferral desirable. Such harvests may be a useful prescription for renewing a forest's sequestration capacity as well.

For more information, updates, and a more detailed chart of qualifications and criteria for the landowner carbon credit programs, visit forestmetrix.com/forest-metrix/download/carbonconsiderations/



foresters & carbon considerations

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Forester Advice Critical to Smart Carbon Management

Measuring & Managing Forest Carbon

More landowners are thinking about maximizing forestland sequestration and storage. Some may even make some money doing this by selling a sort of "carbon credit" that puts restrictions on their land. They will have questions for their foresters, requiring them to have some background on the carbon cycle and how management decisions can play a role. While clients changing the use of their land used to mean the end of the forester-client relationship, a client joining a carbon programs usually still requires a forester's guidance.

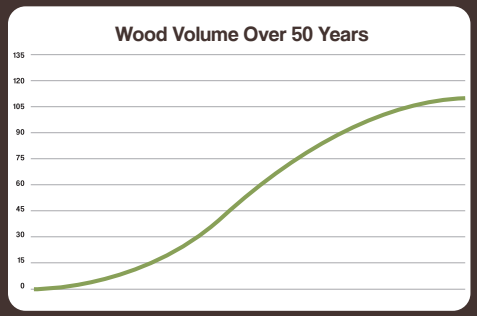
Due to the changing climate, forestry practices are evolving. Increasing risks from weather events, invasives, infestations and other factors change the calculation of the value of timber when factoring in higher likelihoods of losses before harvest. This can make storing carbon more attractive. In forestry, carbon sequestration typically means grabbing carbon from the atmosphere and adding it to the mass of a tree. The trees themselves, and the soil around them, function as carbon storage after this sequestration. This does not preclude harvesting. Some wood products continue to store that carbon out of the atmosphere even after a harvest.

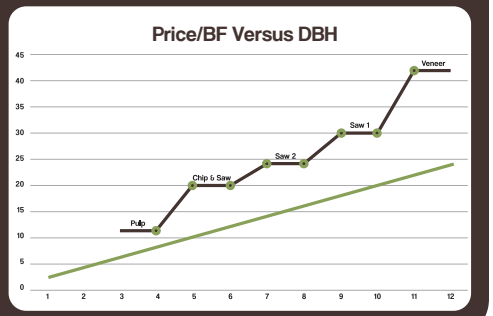
Managing Forests and Carbon

While most traditional carbon credit projects involve thousands of acres in order to provide the needed economies of scale, some new programs cater to small landowners.

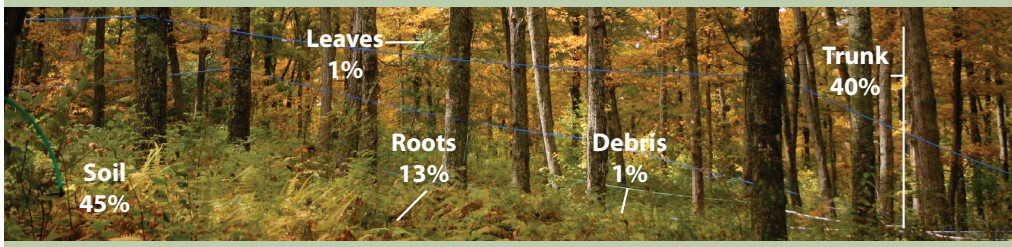
The owner is typically paid an amount per year per acre for putting standardized restrictions on their property. In some cases, the forester continues to be paid for management planning. The terms of those programs differ, but here are some common requirements:

- Temporary restriction added to property deed
- Harvesting is limited
- Terms range from 20 to 60 years of obligation





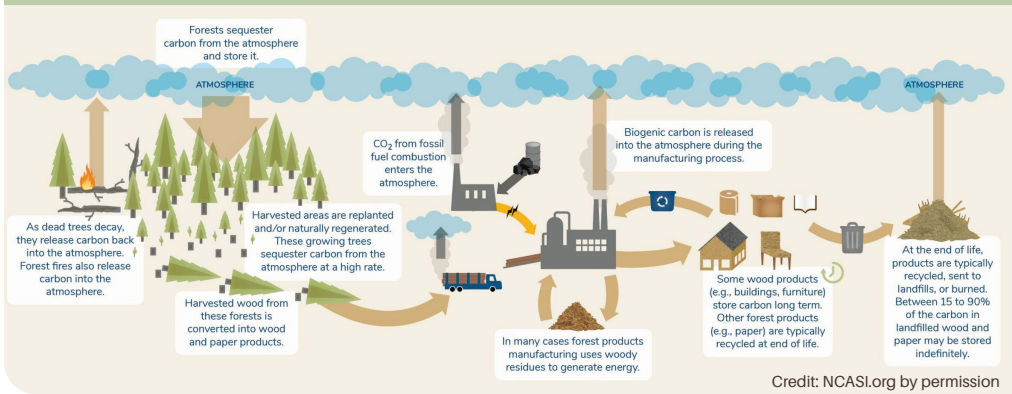
Where Carbon Stays in an Acre of Forest



How carbon gets attributed to various activities is complicated. Because markets react to supply, using forest products can lower the use of replacement materials ("avoided emissions") that produce more carbon pollution than wood does.

The "carbon cycle" shows how carbon moves from the air to the forests and back again. In the various steps between those changes people can make management decisions that affect how much carbon winds up in the air.

Forestry management recommendations typically try to maximize both growth and revenue from forestlands, and because carbon makes up half the material in a tree, this typically helps increase carbon sequestration too. Leaving the forest to grow forever can actually minimize sequestration, which will likely fail to maximize carbon storage in the long-term. Because larger-diameter trees typically earn more revenue per volume, it often works out well to delay harvests until stands reach that size, which is often around when the stand starts to decrease in carbon sequestration.



Credit: NCASI.org by permission

Getting Paid for Carbon Management

While carbon-concerned landowners will tend to want to grow trees larger, to produce wood products that continue to keep carbon out of the atmosphere even after harvest, those post-harvest carbon storage amounts are not currently counted toward carbon credits. Similarly not counted are the carbon emissions avoided by creating wood products that reduce need to use carbon-intensive wood alternatives. Eligibility requires a few things:

- Certain minimum amount of land, either 30+ or 40+ acres
- Lack of other deed restrictions that already limit harvesting
- The land sometimes needs to be in specific areas or have specific forest types on it
- Sometimes the land must have a certain stocking level to apply
- Landowner may have to enroll all property to prevent "leakage," the use of alternate properties to make up for deferred harvests