

City of Astoria

Frequently Asked Questions about Forest Carbon Projects

“Carbon sequestration, what’s that?”

Carbon sequestration or carbon storage is a natural process in which carbon is removed from the air and stored in carbon sinks, such as vegetation throughout earth’s ecosystems. In being carbon sinks, forests grow by absorbing carbon dioxide from air during photosynthesis. This process results in carbon being stored in new forest growth. Some sustainable forestry practices like extending rotations and/or undertaking forest thinning can increase the amount of carbon stored in forests.

“What’s a carbon offset (or carbon credit)?”

A carbon offset is a transaction between a buyer and a seller in which the buyer pays the seller to undertake projects that reduce the amount of carbon dioxide (CO₂) in the atmosphere in order to cancel out an equivalent amount of CO₂ emitted elsewhere. Carbon offsets are often purchased voluntarily by individuals or corporations wishing to reduce the amount of CO₂ in the atmosphere. Buyers often wish to account for emissions that result from their own activities. The term “carbon credit” is often used interchangeably with the term carbon offset, but generally, carbon credits can be thought of as a tradable unit of CO₂ reduction equivalent to one ton of CO₂.

Is the carbon market for real?

Yes. Carbon offsets are sold in compliance markets (i.e. the California Air Resources Board market) and voluntary transactions. In fact, \$523 million was transacted in the global voluntary carbon market in 2013,¹ and 24% of carbon credits voluntarily purchased by businesses and individuals this year were generated by forestry projects. Not all carbon offset projects are forest carbon projects, for instance energy efficiency upgrades, sustainable agriculture, and other project types are transacted frequently. Some buyers value certain projects more based on what type of project it is and planned ancillary benefits that accrue as a result of the project.

Who purchases voluntary carbon offsets?

Typically, private companies, seeking to voluntarily offset their emissions and demonstrate their corporate social responsibility, are the most frequent buyers of carbon offsets. Corporations that often purchase carbon credits include energy utilities and Fortune 500 companies.

What is the role of a “carbon registry”?

¹ <http://www.forest-trends.org/vcm2013.php>

A carbon registry, like the American Carbon Registry,² is an organization that provides standardized protocols for carbon offset project implementation, measurement, and calculation. In short, they help define the value being bought and sold. Registries provide transparency to the carbon market. Registries are often the marketplace where offsets are officially bought and sold, with the transaction record and project details being made available in a transparent manner while maintaining the privacy of carbon sellers (e.g. forest landowners). Developing a carbon offset project using the protocols of a registry helps ensure that: (1) projects are actually creating and selling real offsets, and (2) that each ton of carbon is not sold more than once. While there are a handful of registries, they differ in how they determine landowner eligibility to participate. The three main registries are the American Carbon Registry, the Verified Carbon Standard, and California Air Resources Board.

As a forest landowner, how do I determine if I am eligible to sell carbon from my forest?

While it may seem intuitive that “additional” carbon is stored your forest as a result of forest management actions, it is not currently as simple to calculate carbon yield as it is timber yield. Carbon rules for forestry projects are complex. The easiest way to determine your eligibility is to speak directly with a forest carbon project expert who is intimately familiar with the requirements of multiple carbon registries. A good place to start is by visiting the website of a forest carbon project developer. A small number of forest carbon project development consultants specialize in working with landowners to evaluate their carbon potential just as one could evaluate their potential to achieve other land management objectives. Such firms are adept in using cutting edge computer-based forestry models to simulate the growth and yield that actually occurs in their client’s forest. Working with a forest carbon project developer allows landowners to decide whether they would like to proceed in developing a forest carbon project based on their projected income. Typically, forest carbon project developers do not receive compensation from the landowner for these services until (and only if) a carbon deal is finalized.

What are the steps involved with developing a forest carbon project on my property?

While each landowner will have different levels of information at hand about their forest, necessitating more or less technical work associated with the project, the following steps are generally how projects are developed:

Step 1: The landowner decides that they would like consider their opportunities in forest carbon.

² <http://americancarbonregistry.org/carbon-accounting/carbon-accounting/ifm-methodology-for-non-federal-us-forestlands>

Step 2: The type of project (i.e. reforestation, sustainable forest management, or avoided forest conversion) that the landowner is interested in undertaking is selected by the landowner in consultation with the project developer. The job of the developer is to listen to the landowner's goals and work with them to design a carbon project that meets these goals.

Step 3: The registry is selected and the landowner selects a forest carbon project developer to work with.

Step 4: The project developer compiles forest inventory and other relevant data into a project package that is submitted for documentation with the registry. Once the project is listed with the registry a third-party will verify that the project developer performed the correct field work and that the carbon offset claims are real. The verifier then writes a verification report and submits it to the carbon registry.

Step 5: The registry reviews the verifier's report and if the project is viewed favorably by the registry carbon credits are issued for the project. The landowner can then decide how they would like to market and sell their credits. In some instances, buyers are aware of projects as they are in development.

Step 6: Credits are sold. Depending on the type of forest carbon project undertaken, the landowner implements appropriate management actions to store carbon in their forest.

Step 7: The project is monitored periodically to ensure that the forest is still sequestering carbon at approximately the rate modeled by the project developer.

What kind of commitments will I have to make to be eligible to sell carbon?

There are three major commitments that forest landowners must make to participate in most forest carbon projects, including those completed under the American Carbon Registry protocol:

1. Landowners agree to increase the carbon stocks in their forest above an agreed-to carbon stocking level for the entire project period.
2. Landowners agree to ensure that the forest is certified by the American Tree Farm system, Sustainable Forestry Initiative, or the Forest Stewardship Council.

3. Landowners agree to follow the management plan prescribed in their forest carbon project.

Can trees be harvested during forest carbon projects?

Yes. Planned harvests are allowed as long as carbon stocks in their forest remain above an agreed-to carbon stocking level during the project period. A common misconception is that forest management in forest carbon projects is equivalent to no management at all. This is not the case. However, since management objectives are different when managing for carbon in addition to timber products, management in a carbon scenario is likely to change. This may include a shift in the timing of your harvests, rotation length, and the amount of trees harvested. For most landowners, this change may be as simple as extending a rotation for 5 to 10 years beyond the current harvest schedule. In most instances, harvests planned for in consultation with a forest carbon project developer will actually increase the amount of total carbon stored on site.

Will I have to sell my land?

No. Certain registries require that conservation easements be placed on land, but this is not a universal requirement for all forest carbon projects and is not required by the American Carbon Registry Improved Forest Management of Non-federal Lands protocol.

Can I back out of a carbon contract if I want/need to?

Yes. Carbon contracts can be terminated at any time by the landowner, but there can be penalties for backing out early and these penalties vary by carbon registry. Most often, registries require that the total amount of carbon claimed from between the project initiation date and the project termination date is replaced by the landowner. Alternatively, the landowner and the project developer may have an arrangement where the project developer assumes all of the risk on behalf of the landowners under their portfolio, meaning that they would be responsible for replacing any carbon credits voided by landowners exiting early.

What happens if my timber, and thus my carbon, is destroyed in an unplanned natural disaster?

Each year as carbon credits accrue, a portion of the credits are set aside in a buffer pool, which acts like a form of insurance for unavoidable losses of carbon that may occur as a result of an unforeseen natural disaster.