

WOODLAND CARBON CODE TECHNICAL INFORMATION

What is the code?

The woodland carbon code is a voluntary scheme for afforestation which reassures carbon buyers that they have invested in a responsible project. Through clear standards and procedures, Highfield Forestry managers can calculate reliable forecasts of sequestered (locked up) carbon within your newly planted woodland, for up to 100 years. The amount of carbon equivalent per hectare is defined as a Woodland Carbon Unit (WCU), which can be listed on the Markit online registry for prospective buyers.

Requirements

- The scheme must be registered with the Forestry Commission
- Information required includes: location and long-term objectives
- The scheme must meet with forestry standards to show it is managed responsibly and sustainably
- A long-term management should be outlined
- Utilise standard methods for estimating the potential amount of carbon

Additionality

Projects are required to prove that they would not go ahead without the carbon income, thus ensuring the Woodland Carbon Code only certifies woodland creation schemes that remove additional amounts of carbon from the atmosphere. This is proven through four tests:

1. A legal test
2. A contribution of carbon finance test
3. An investment test
4. A barrier test

Both test 1 AND Test 2 plus ONE OF Test 3 or Test 4 must be passed to ensure additionality.

Carbon Calculations

It is difficult to estimate the carbon potential of a woodland; however, it is known that roughly half the dry weight of a tree is composed of carbon.

The Forestry Commission has developed two tools for carbon estimation:

- **Direct tree measurements** utilise certain aspects of a tree; including height and stem diameter. From this, a carbon estimate can be derived. This method is used within the verification process.
- **Carbon lookup tables** offer predictions of sequestered carbon. This utilises the site conditions along with the certain tree species.

Due to the uncertainty of predictions, a buffer must be applied to the WCUs to safeguard the investment made by the carbon buyer. This is usually between 15% and 40%. This enables the issued WCUs to be permanent and they will never have to be paid back.

Validation

A project must be validated within three years after registering on Markit. This involves the completion of the project design document, which contains information on: eligibility, site management, anticipated carbon sequestration, environmental quality, and social responsibility. This is then independently audited along with the supporting evidence.

Verification

Verification is the continual assessment of the carbon sequestration of the project. The first verification date is 5 years after the start of the project and after that, every 10 years. This also ensures national forestry standards are adhered to. There is a cost associated with verification reporting.

Carbon income

The income can be received either up front or at every verification throughout the project. When sold as it is sequestered at each verification, the carbon buyer can 'use' the WCUs immediately. This method provides regular income and could prove rewarding if the price of carbon rises.

When receiving the income in advance, as a one-off payment, it helps you with the establishment cost, but the carbon buyer must wait to 'use' the credits.

The following table displays the carbon sequestration potential for three woodland creation scenarios.

Scenario	Saleable carbon sequestration by year 50	Saleable carbon sequestration by year 100
Sitka Spruce , 2.0m spacing, Yield Class 16, mounding on organo- mineral soil. Thinned to standard regimes, but no clearfell. 15% risk of non-permanence buffer.	340 tCO ₂ /ha.	470 tCO ₂ /ha.
Sitka Spruce , 2.0m spacing, Yield Class 16, mounding on organo- mineral soil. No thinning. Clearfell at 40 years. 15% risk of non- permanence buffer.	135 tCO ₂ /ha. This would be achieved by year 40, but no further carbon can be claimed.	135 tCO ₂ /ha. This would be achieved by year 40, but no further carbon can be claimed.
Mixed native woodland , 2.5m spacing, Yield Class 4-8, mounding on organo- mineral soil. No thin or clearfell. 20% risk of non- permanence buffer.	375 tCO ₂ /ha.	470 tCO ₂ /ha.

Useful webpages

www.forestry.gov.uk/carboncode
www.forestry.gov.uk/carbonregistry

Further information

For any further information/queries, please feel free to contact us:

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