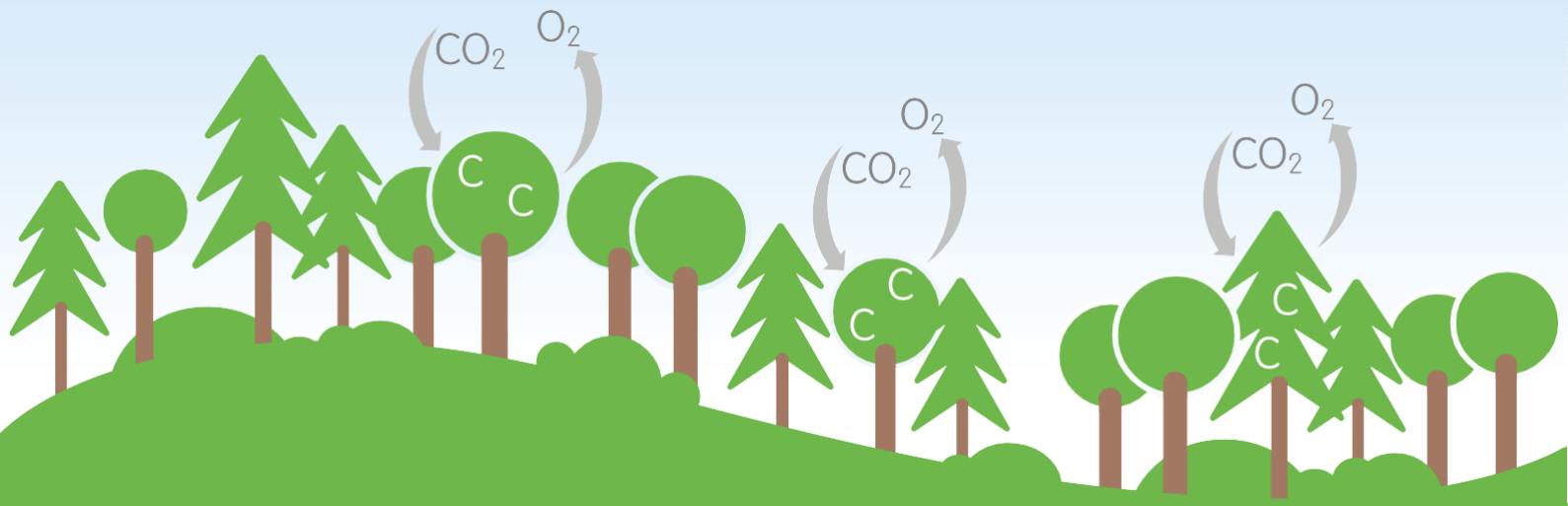
Woodland Carbon Code Biodiversity Methodology



Woodland Carbon CO_2de

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Introduction

Background and purpose

Following the success of the Woodland Carbon Code in establishing a high-integrity, government-backed domestic carbon code for new woodland creation in the UK, the WCC, in collaboration with the IUCN UK's Peatland Code, has developed a proposed methodology to expand nature markets and better understand biodiversity impacts of new woodland creation.

The Woodland Carbon Code's biodiversity methodology is a novel tool for the standardised quantification of biodiversity uplift associated with new woodland creation. Nature markets have been expanding beyond carbon to include to commodification of other benefits from nature. Biodiversity represents the stocks of natural capital, which provide flows of ecosystem services which are critical to human wellbeing and the economy.

Biodiversity credits are a novel pathway for private finance to activate nature restoration. A biodiversity credit is not as simple to quantify as a carbon credits, which universally represent one metric tonne of carbon dioxide equivalent emissions avoided or removed. Although the market is moving towards coherence, different biodiversity standards can still have different definitions for what a credit represents. However, the Woodland Carbon Code definition for biodiversity credits will align with dominant market trajectories, which is a 1% uplift in biodiversity per hectare.

Scope

The biodiversity methodology is designed to mirror the overall framework for the Woodland Carbon Code. Projects that are eligible for carbon credits under the WCC can choose to follow the biodiversity quantification methodology and produce "Carbon+ units", where each carbon credit will have an associated percent biodiversity uplift, calculated at each vintage of carbon credits. Additional clarification on credit types and justification is included in the "Woodland Carbon Code and Peatland Code biodiversity methodology guidance document".

Normative references

This document shall be read in conjunction with:

- Woodland Carbon Code (latest version)
- Biodiversity metrics white paper
- Biodiversity methodology guidance document
- Operation Wallacea biodiversity credits methodology

Future changes to the code

Any new methodology will follow the 'new methodology framework' within the WCC before adoption into the standard. Future developments to the methodology under consideration are discussed in the biodiversity methodology guidance document.

Projects should adhere to the most current version of the Woodland Carbon Code. Validated/verified projects must comply with changes within one year of their introduction.

Application of the WCC biodiversity methodology

The WCC biodiversity methodology applies to woodland creation projects as defined by the Woodland Carbon Code. Eligible activities are the same as within the Woodland Carbon Code for carbon sequestration projects, with the exception of the minimum size.

For the purposes of the consultation, this document focuses on additional requirements for projects seeking to register, validate and monitor biodiversity using the proposed WCC biodiversity methodology. All projects seeking to produce “Carbon+ units” must therefore still adhere to all requirements outlined in the most recent Woodland Carbon Code Standard. If the WCC biodiversity methodology is finalised and adopted, it will be amalgamated with the existing carbon project requirements outlined in the Woodland Carbon Code.

The structure of the code

The code sets out principles and requirements for best practice in woodland creation projects. Requirements for each key aspect of project design and management are addressed in turn, along with the means of validation/verification and further guidance. Words in bold are explained in the glossary.

Principle

The principle summarises the concept of each section.

Section X.X **Aspect 1**

Requirement

These are the compulsory elements of the Code and are generally stated as 'shall'. Validation/verification bodies will check and verify that each requirement is being met.

Means of validation/verification

- These are examples of the type of evidence that the validation/verification body will consider in order to check that the requirements are being met. The list is not exclusive or exhaustive; validation/verification bodies will not always need to use all the verifiers suggested and may seek verification in other ways. The validation/verification body will take into account the size of the project when assessing what evidence is required.

X Not required. Some sections are not re-checked at verification and do not require further evidence at this stage.

Guidance

These notes help the project developer to understand how the requirements should be applied in practice. For each section, additional guidance is available online via the following link:
Further online guidance >

1 Eligibility

Principle

Projects should be eligible in terms of the timing and type of activity, the site type, compliance with legislation and conformance with relevant guidance. The project should also be additional.

1.1 Key project dates

Requirement

All projects (whether single or part of a group) shall be registered before work begins onsite (the project implementation date). Single projects shall be validated within three years of registration. For groups, projects can be added to a group (subject to group rules) up to the point of validation. Group validation shall be carried out within three years of the date of the first registration within the group. For single projects or groups, a validation extension may be given in extenuating circumstances. Validation statements shall only be issued once planting and biodiversity baseline surveys are completed (the project start date).

Projects shall have a clearly defined duration and shall not exceed a hundred years. Projects involving clearfelling shall have a minimum project duration equal to the shortest clearfell rotation in the project.

Projects shall explicitly clarify in the project design document how the woodland creation and management will improve Woodland Ecological Condition scores over the lifetime of the project.

Means of validation

- Project design document.
- Grant scheme contract.
- Biodiversity baseline monitoring sheet

Means of verification

X Not required unless changes are made to the project duration.

Guidance

The project implementation date is the date when work begins onsite. The project start date is the last date of planting or restoration activities. For natural regeneration, it is when measures are in place for deer or other pest control and any other restoration activities have been completed. It is the date from which carbon sequestration and biodiversity uplift is accounted for (For projects validated using Version 1.2 of the WCC or earlier, the start date was defined as the start of planting).

The project duration begins from the project start date and is the time over which carbon sequestration and biodiversity uplift claims are to be made.

The project end date can be up to 100 years from the start date. The project duration should not be confused with permanence. All projects shall involve a permanent land-use change to woodland cover (See Section 2.3). The project registration date is the date on which a project moves from ‘Draft’ to ‘Under Development’ status on the UK Land Carbon Registry.

Further online guidance >

1.2 Eligible activities

Requirement

Eligible activities shall be those relating to **woodland creation** on soils which are not organic.
Adopting the precautionary principle, where it is possible that there are:

- organomineral soils, where the project includes a mosaic of habitat types, or
- important habitats (potentially areas of the project have been previously identified as 'species-rich' in an agri-environment scheme),

then peat depth, soil type and vegetation (National Vegetation Classification) surveys shall be provided at validation.

Carbon+ projects monitoring biodiversity shall have a minimum project size of 50 hectares.

Means of validation

For conversion of open ground to woodland:

- Statement on land use in project design document.
- Land use records.
- Reference to historical maps, images or other sources such as the Forestry Commission, Scottish Forestry, Welsh Government, or Northern Ireland Forest Service planting and felling databases.
- Signed attestation from independent expert.

For soil type:

- Statement on soil type in project design document.
- Results of field survey for soil type and where necessary, surveys for peat depth and vegetation (see section 3.1).
- Soil maps.

Means of verification

X Not required.

Guidance

Woodland creation is the direct, human-induced conversion to woodland of land that has not been under tree cover for at least 25 years. The woodland can be established by planting, direct seeding or natural colonisation/regeneration.

Organic soil consists of more than 50 cm deep organic (or peat) surface horizon overlaying the mineral layer or rock. A list of organic soils is available.

We encourage the use of plants from Plant Healthy-certified nurseries where possible. Plant Healthy is a certification scheme designed to ensure that people who grow and handle plants have suitable biosecurity standards in place.

See section 3.1 for details of field survey for soil type.

Further online guidance >

1.3 Eligible land

Requirement

Legal ownership, or tenure of the project area, shall be demonstrated. Where land is tenanted, both the landowner and tenant shall commit to the WCC for the project duration and beyond (See section 2.1)

Means of validation

- Declaration in project design document detailing nature of ownership and landowner/tenant contact details and if leased, tenure documentation and landlord's consent.
- Solicitor's letter.
- Title deeds.
- Land registry records.
- Certified copy of lease (if tenanted).

Means of verification

- Confirmation of landowner/tenant contact details, with evidence as per validation if landowner has changed.

Guidance

Land can be freehold or leasehold. If leased, landowner's consent should be presented. See section 2.3 relating to risks and permanence.

Further online guidance >

1.4 Compliance with the law

Requirement

Projects shall comply with the law.

Means of validation

- Statements in project design document that the project complies with all relevant laws.
- Project design document outlines a system or procedures for being aware of and implementing requirements of new legislation.
- Signed commitment from the landowner to comply with the law (See section 2.1).
- No evidence of non-compliance.

Means of verification

- Statements in the Project progress report that the project continues to comply with all relevant laws.
- Other evidence as per validation.

1.5 Conformance to the UK Forestry Standard

Requirement

Projects shall conform to the UK Forestry Standard including the elements of sustainable forest management (climate change, soil, water, biodiversity, landscape, historic environment and people).

Means of validation

- Statement in project design document that the project conforms to the UK Forestry Standard.
- Signed commitment from the landowner to conform to the UK Forestry Standard (See section 2.1).
- No evidence of non-conformance.

Means of verification

- Statement in project progress report that the project conforms to the UK Forestry Standard.
- Other evidence as per validation.

Guidance

The validation/verification body will check there is no evidence of non-conformance with the UK Forestry Standard. See also section 2.1.

Further online guidance >

1.6 Additionality

Requirement

The legal and investment tests shall be passed to demonstrate additionality.

Legal test: There is no legal requirement specifying that woodlands should be created. Compensatory planting is not eligible.

Investment test: Projects shall demonstrate that without natural capital finance the woodland creation project is either not the most economically or financially attractive use for that area of land or is not economically or financially viable on that land at all.

Project developers shall use the template WCC cashflow spreadsheet to demonstrate how the investment test is met. The relative proportions of each source of income shall be declared in the project design document.

Means of validation

- Statements in project design document.
- WCC cashflow spreadsheet
- Further supporting evidence of work undertaken as required

Means of verification

X Not required.

Guidance

WCC Carbon+ Units explicitly quantify the wider biodiversity benefits of new woodland creation, in a format known as an “explicit bundle”. With a robust biodiversity baseline for a site and independent validation, it is possible for the code to evolve alongside the nature markets industry, thereby providing the potential for multiple credit types to be generated from the same project.

Projects with other sources of income including grant aid under a government-funded initiative, timber income or charitable donations, are eligible provided the Investment Test is passed.

Further online guidance >

2 Project governance

Principle

Projects should have an effective governance structure to ensure sustainable management, involving stakeholders where necessary, with transparent communication about the project, carbon, and biodiversity.

2.1 Commitment of landowners and project developers/group managers

Requirement

The landowner (or where land is tenanted, both landowner and tenant) shall commit to:

- Conform to this standard.
- Permanent land-use change.
- Manage land as per current management plan for the establishment period and as per longer-term management intentions for the project duration and beyond (2.3).
- Comply with the law (1.4) and conform with the UK Forestry Standard (1.5).
- Restock where projects involve harvesting (2.3).
- Replant or undertake alternative planting should woodland area be lost to wind, fire, pests, disease or development (2.3).
- Inform future landowner(s), and where tenanted, future tenant(s), of the commitment to the Woodland Carbon Code and any carbon and biodiversity contracts (2.3).
- Monitor and maintain verification for the project duration as per WCC guidance (unless the third party project developer
- agrees to take this on – 2.5).
- If there is a loss of woodland carbon or biodiversity, notify the WCC secretariat immediately and submit a Loss Report within six months of discovery (2.3).
- Ensure the project, any PIU listings, sales to carbon buyers, and retirement for use of verified Woodland Carbon Units is accurately represented and up to date in the UK Land Carbon Registry (either in their own account or via the project/ group manager's account) (2.6).
- Only sell units which are validated and verified to a standard which is endorsed in the UK Environmental Reporting Guidelines (2.6).
- Make true and accurate carbon statements and nature impact statements about the project which conform with guidance (2.7).
- Abide by the WCC logo rules of use.

Where larger estates are managed by trustees, then either the landowner themselves, or the legal signatory shall sign the landowner commitment statement.

The **project developer** or group manager shall commit to:

- Conform to this standard.
- Comply with the law (1.4) and conform with the UK Forestry Standard (1.5).
- Monitor and maintain verification for the project duration as per WCC guidance (unless the landowner has agreed to take this on – 2.5).

- Ensure the project, any PIU listings, sales to carbon buyers, retirement for use of verified Woodland Carbon Units is accurately represented and up to date in the UK Land Carbon Registry (2.6).
- Only sell units which are validated and verified to a standard which is endorsed in the UK Environmental Reporting Guidelines (2.6).
- Make true and accurate carbon statements and nature impact statements about the project which comply with guidance (2.7).
- Make buyers aware of the WCC guidance on carbon and nature impact claims and ensure this is included in contracts with buyers (2.7).
- Abide by the WCC logo rules of use and make carbon buyers and landowners aware of the WCC logo rules of use.

Groups shall have a nominated group manager and a formal management structure between members.

Groups shall have a group agreement which sets out:
- The name of the group, its size and geographic scope and any other limitations on membership.
- The name and contact details of the group manager and the arrangements for replacing the group manager should this be necessary.
- The name and contact details of the constituent landowners (and land managers if there are any).
- Details of the projects covered by the agreement (unique IDs, project names, locations and areas).
- Each project's liability for the group's carbon and biodiversity rights and commitments (including consideration of whether the units are sold collectively or individually).
- The group's management structure and any other group rules.
- If not specified separately, the commitments of each landowner and the group manager as outlined above.
- Signatures of the group manager, all the landowners, and land managers if there are any.
- The roles and responsibilities of the group manager and the group members as set out in online guidance:

Means of validation

- Signed commitment from the landowner (and tenant where applicable), or contracts between the landowner/tenant and project developer to confirm the landowner's/tenant's and project developer's commitment to the standard as detailed above and in the online guidance.
- Group agreement.

Means of verification

- Commitment from new landowner/tenant if the landowner/tenant has changed.
- Updated group agreement if any group members (including the manager) have changed.

Guidance

This section brings together the commitments of the landowner and project developer/group manager from the relevant sections of the standard. See also sections 1.4, 1.5, 2.3, 2.5, 2.6 and 2.7.

Further online guidance >

2.2 Management plan

Requirement

There shall be management planning documentation, initially for the establishment period, containing:
- An outline of the necessary inputs and resources including a full financial analysis.
- A summary of operational techniques.
- A chronological plan for initiation of key project activities.
- Consideration of species selection for future climate and positive biodiversity outcomes.
- A map of the areas under new woodland creation.

The management plan shall be updated on a regular basis. There shall be an outline of the longer-term management

intentions, for the **project duration** and beyond.

The land manager shall have the management capacity necessary to carry out the planned project activities for the duration of the project.

Means of validation

- Management planning documentation deals with all issues above
- Project design document which clearly defines how roles in the project will be fulfilled.
- Project team lists which identify key technical skills
- Evidence from previous project experience
- Woodland creation map which meets WCC mapping rules

Means of verification

- Up-to-date management planning documentation
- Updated longer-term management intentions
- Updated planting map (if boundaries/other spatial project details have changed).

Guidance

If the project is receiving a woodland grant (or has a felling licence), any existing woodland management plan may provide sufficient evidence of the management plan.

For further information on sustainable forest management see the UK Forestry Standard (including the sustainable forest management elements of climate change, soil, water, biodiversity, landscape, historic environment and people)

Further online guidance >

2.3 Management of risks and permanence

Requirement

The landowner shall demonstrate the commitment to **permanence** by:

- Identifying risk factors and developing appropriate mitigation strategies as set out in the project's risk assessment.
- Contributing to the relevant buffer pool within Woodland Carbon Code based on project type (carbon or carbon+).
- Ensuring re-stocking where projects involve harvesting. Restocking shall lead to improved biodiversity outcomes.
- Replanting or undertaking alternative planting should woodland area be lost due to wind, fire, pests, diseases
- or development.
- Managing as per the longer-term management intentions for the project duration and beyond (See section 2.2).
- Inform future landowners of the commitment to the WCC and any nature-based contracts.

Should a project experience a loss or anticipated loss of carbon or biodiversity, the landowner shall:

- Notify the **WCC secretariat** immediately.
- Submit a loss report to the **WCC secretariat** within six months of discovery of the loss.

Means of validation

- Further evidence to confirm assessment of risk.
- Contribution to the relevant buffer pool reflected in registry (section 3.4).
- Evidence of contracts with or a signed commitment statement from the landowner requiring:
  - restocking where projects involve harvesting.
  - replanting or alternative planting should woodland area be lost due to wind, fire, pests, disease or development.
  - managing as per the longer-term management intentions for the project duration and beyond.
  - the landowner to inform future owners of the commitment to the Woodland Carbon Code.
  - the landowner to notify the **WCC secretariat** of any loss immediately and submit a loss report within six months (See section 2.1).

Means of verification

- Details of any new or increased risks in the project progress report.
- Any loss reports are submitted as set out above, and the magnitude of any loss is quantified during the subsequent verification survey and in the project progress report.

2.4 Consultation

Requirement

Projects shall provide an opportunity for, and take account of, inputs from stakeholders and feedback from local communities during both the project design phase and over the lifespan of the project.

Means of validation

- Consultation details in **Environmental Impact Assessment** or Environmental Statement/EIA Report.
- Grant application which confirms the level and outcome of consultation.
- Other documentation which provides evidence of the approach taken to achieve meaningful stakeholder consultation, along with a summary of feedback and the actions taken.

Means of verification

- Documentation confirming the approach to and outcome of ongoing consultation.

Guidance

A toolbox for public engagement in forest and woodland planning assists forest and woodland managers when planning for public involvement, and when considering which tools they could use to include people in forest or woodland planning.

In Scotland, the Scottish Land Commission Protocol on Community Engagement in Decisions Relating to Land provides further guidance.

Where an EIA was required, or a woodland creation grant was given, these processes should usually provide the appropriate documentary evidence for stakeholder consultation and engagement.

Further online guidance >

2.5 Monitoring

Requirement

For the purposes of the consultation, this section has been simplified to only include the additional monitoring that would be required for the biodiversity aspect of a Carbon+ project. All projects seeking to produce “Carbon+ units” must still adhere to all monitoring requirements included in section 2.5 of the Woodland Carbon Code. If the biodiversity methodology is finalised and adopted, these sections will be amalgamated in the Woodland Carbon Code Standard.

Establishment of biodiversity baseline and ongoing biodiversity monitoring

The project shall calculate the biodiversity scores using the Operation Wallacea Biodiversity Credits Methodology adjusted for UK woodlands per the woodland biodiversity methodology guidance document. The monitoring plan shall be submitted within the project design document.

Projects shall use the metrics outlined below as the methodology for developing the site’s biodiversity baseline prior to work beginning on site, and prior to validation. A biodiversity monitoring report shall be provided at validation.

As a minimum, monitoring of changes in biodiversity metrics shall take place (maximum 12 months) prior to each verification by the project. A biodiversity monitoring report shall be provided at verification.

The biodiversity baseline, the changes from the baseline (to be measured every five years), and the reference site baseline (for sites using a reference site) shall all go through the independent validation and verification processes prior to confirmation of the associated percent uplift in biodiversity for Carbon+ credits.

The most current version of the Operation Wallacea Biodiversity Crediting Methodology shall be used to quantify biodiversity. The woodland biodiversity methodology guidance document states any changes to the Operation Wallacea Methodology that the Woodland Carbon Code identifies in order to maintain ecological integrity and better represent the UK context.

Monitoring plan

The monitoring process shall be documented and the outputs recorded. Outputs shall lead to review and, where necessary, modification of mitigation and management measures as required.

The monitoring plan in the biodiversity project design document shall include but is not limited to:

- A monitoring plan for the following metrics used in biodiversity uplift quantification:
    - Defra Biodiversity Net Gain metric or Woodland Ecological Condition tool
    - Community Similarity index
    - Bird survey
    - Plant survey
    - Bat survey
    - Invertebrate survey (select one relevant taxonomic group to your project as part of project design)

- A statement of the monitoring activities to be implemented over the project duration including identification of necessary resources and inputs.
- The monitoring plan shall link to the risk assessment and relate to the ongoing land management. It shall specify how and why the monitoring will take place, using best practice methodologies.
- A chronological plan of monitoring activities.
- A statement of all individuals, from surveyor on ground, other contractors/employees of the farm or estate, project developer/agent and landowner involved in the delivery of monitoring activities and their expertise. Show clearly how the process of reporting operates and who is responsible for maintaining and filing the monitoring records and overall responsibility.
- Site condition shall be monitored, with a general overview of the site condition identifying any areas of concern including monitoring of greenhouse gases leakage potential and including all assessment unit categories.
- At minimum the following information shall be captured: GPS point, photos, name of surveyor, condition summary and any further work requirements listed.
- The project shall be monitored as per the monitoring plan for the project duration.
- A statement from an independent biodiversity expert reviewing the statistical robustness of the sampling strategy, the suitability of the monitoring programme for the specific site, and any conflicts of interest between the expert, project developer, landowner, or potential buyer (if a buyer is funding the work prior to credit generation). Validation bodies will assess if the sampling strategy was sufficiently followed.

Means of validation

- Monitoring plans set out in the project design document.
- Signed commitment from the landowner or project developer to monitor and maintain verification for the project duration (See section 2.1).

Means of verification

- Project progress report shows continuing compliance with the Woodland Carbon Code.
- Monitoring reports show progress of carbon sequestration and biodiversity uplift.
- Other evidence as specified in the relevant monitoring protocol.
- Other evidence to show that corrective actions have been undertaken.

2.6 Registry and avoidance of double counting

Requirement

Projects and units shall only appear on one carbon registry – The UK Land Carbon Registry.

For group validation/verification, the group and its constituent projects shall be entered on the registry as a 'master project' and 'subprojects' respectively.

All projects, project documentation, carbon units, assignments and retirements shall be visible in the 'public view' of the UK Land Carbon Registry.

At validation, Carbon+ projects shall be identified and the biodiversity baseline status made available.

At each verification, the percent biodiversity uplift associated with Carbon+ units shall be listed.

Prior to using units in any reports, they shall be 'retired' from the UK Land Carbon Registry.

Projects shall not accept any tree donations or other sponsorship where this creates a double claim between the WCC and the donation regarding environmental benefits.

Project developers shall comply with the Registry Rules of Use and shall only sell units which are validated and verified to a standard which is endorsed in the UK Environmental Reporting Guidelines.

Means of validation

- The landowner, project developer or group manager has an account on the UK Land Carbon Registry.
- The project is recorded on the UK Land Carbon Registry.
- Signed commitment that the project developer will ensure the project and Carbon+ units are accurately represented on the registry, and that the project developer only sells units which are validated and verified to a standard which is endorsed in the UK Environmental Reporting Guidelines (See section 2.1).

Means of verification

- Confirmation in Project Progress Report that the project is not verified/approved by another carbon or biodiversity standard and has not accepted any tree sponsorship or donations for the carbon benefit.
- Units are issued and appear in the public view in the account of the current owner, or are assigned to the current owner, on the UK Land Carbon Registry.
- No evidence from the landowner or project developer's websites that they are selling carbon or biodiversity units which are not validated/verified to a standard which is endorsed in the UK Environmental Reporting Guidelines.
- Units are shown as retired from the UK Land Carbon Registry upon use.

2.7 Biodiversity statements and reporting

Requirement

Landowners and **project developers** shall make buyers aware of the WCC guidance on carbon and biodiversity uplift claims.

Any carbon or nature impact statement by the landowner, the project developer or the carbon buyer shall be true and accurate and conform with recommended wording. Statements made prior to carbon sequestration/biodiversity uplift shall clearly state the timescale over which the sequestration and habitat restoration is expected to occur.

Means of validation

- Signed commitment from the landowner/project developer to make true and accurate statements about the project/ carbon which conform to WCC claims guidance (See section 2.1).
- Any statements/reports on signage/websites/leaflets or other media comply with the WCC claims guidance.
- No evidence of non-compliance with the WCC claims guidance.

Means of verification

- Confirmation in the project progress report that statements made by the landowner, project developer or corporate buyer comply with WCC claims guidance.
- Any project documentation or carbon/biodiversity statements/reports follow the WCC claims guidance.
- No evidence of non-compliance with WCC claims guidance.

3 Biodiversity uplift

For the purposes of the consultation, this section has been simplified to only refer to the biodiversity aspect of a Carbon+ project. All projects seeking to produce “Carbon+ units” must still refer and adhere to section 3 ‘Carbon Sequestration’ of the Woodland Carbon Code. If the WCC biodiversity methodology is finalised and adopted, these sections will be amalgamated in the Woodland Carbon Code Standard.

Principle

Projects should provide as accurate as possible measurements of biodiversity improvements from habitat restoration.

3.1 Biodiversity baseline

Requirement

Projects shall describe the original condition of the project site including details of the vegetation cover, soil type and their carbon content.

They shall also provide their biodiversity baseline monitoring as outlined in section 2.5.

Means of validation

For site description:

- Appropriate maps, photographs or remotely sensed images to indicate previous land cover.
- Results of field survey for vegetation or soil type.
- Maps for soil type.

For biodiversity baseline:

▶ Baseline biodiversity monitoring report

Means of verification

X Not required.

3.2 Leakage

Requirement

The land manager shall confirm any intention to change or intensify the use of land elsewhere on the holding as a consequence of the woodland creation.

If leakage (land use change/intensification outside the project boundary but within the UK) is proposed, then projects shall carry out an assessment to determine whether this will result in reductions of biodiversity offsite.

If significant reductions of biodiversity occur, they shall be quantified for the duration of the project and accounted for in the 'net biodiversity uplift' (See section 3.4). Otherwise, leakage is assumed to be 'No change over time'.

Means of validation

- Statement in project design document of intention by the landowner to replace the previous land use or activity elsewhere.
- **Leakage** assessment in project design document.
- Mapping or field observation of current land uses and the likelihood of displacement of activities.
- Further calculations of **leakage**.

Means of verification

- Confirmation in the project progress report of current assessment of level of **leakage** from the project.

Guidance

Leakage in this context is the potential for habitat degradation and subsequent loss of biodiversity as a result of the project (e.g. displacement of agricultural activities might result in deforestation or intensification of use of non-wooded land elsewhere).

As the biodiversity credit market evolves, the definition of biodiversity leakage will expand accordingly. Leakage is significant if it results in land use changes of magnitude ≥5% of the project area.

3.3 Project biodiversity uplift

Requirement

Biodiversity baselining shall be completed prior to any initial work is completed on site, in order to ensure that potential disruptions to the habitat as a result of woodland creation are not included in the baseline.

Biodiversity uplift shall be calculated based on the difference between the baseline values from the biodiversity monitoring results during validation and the value from the most recent verification. Calculations shall be completed using the Operation Wallacea Biodiversity Credit Methodology.

Means of validation

- Project design document
- Results from biodiversity monitoring with associated Operation Wallacea calculations.

Means of verification

- Updated results and calculations from biodiversity monitoring

Guidance

The Operation Wallacea Biodiversity Credit methodology is a framework upon which biodiversity crediting methodologies can be built. The standardised metrics in section 3.1 have been reviewed by a woodland biodiversity advisory team to be compatible with the Operation Wallacea methodology, while being sensitive and responsive indicators that will capture the habitat uplift trajectory of forest restoration.

3.4 Net biodiversity uplift

Requirement

Net project biodiversity uplift shall be calculated using the Operation Wallacea methodology and comparing the difference between the baseline calculations and the verification year biodiversity monitoring results.

Net project biodiversity uplift shall be confirmed in the biodiversity monitoring reports.

The verified Woodland Carbon Units produced in each vintage shall have a percent biodiversity uplift associated on a per hectare basis. These credits shall be updated in the registry to reflect the biodiversity improvement associated with each Woodland Carbon Unit.

Means of validation

- Biodiversity baseline monitoring report.
- Summary of biodiversity status in project design document.

Means of verification

- Confirmation of habitat uplift in current vintage in the biodiversity monitoring report

4 Environmental quality

Principle

Projects should be of high environmental quality, including habitats, species, soil and water environments, as well as landscapes.

Requirement

There shall be woodland design planning documentation which considers the environmental aspects of sustainable forest management set out in the UK Forestry Standard and these standards shall be maintained throughout the duration of the project.

Projects shall demonstrate whether or not an Environmental Statement/EIA Report is required under the Environmental Impact Assessment Forestry Regulations. They shall provide:

- the Environmental Statement/EIA Report if one was required; or
- other evidence that environmental impacts of the project are likely to be positive if no EIA is required.

Means of validation

- Environmental quality statements in project design document.
- Design planning documentation.
- Environmental Statement/EIA Report or confirmation that one is not required under EIA regulations.
- Woodland Benefits Tool
- Other relevant documentation.

Means of verification

- Evidence confirming the environmental benefits of the project to date.

Guidance

All projects should be able to show that any environmental impacts on the land area concerned are likely to be positive.

See the UK Forestry Standard (including the sustainable forest management elements of climate change, soil, water, biodiversity, landscape and historic environment). The Woodland Benefits Tool provides scores for the biodiversity, water, community and economy benefits of projects. it is optional to monitor the environmental benefits of projects over time.

Further online guidance >

5 Social responsibility

Principle

Projects should be socially responsible and where possible offer benefits to local communities and other interested forest users or stakeholders.

Requirement

There shall be design planning documentation which incorporates the social aspects of sustainable forest management set out in the UK Forestry Standard and these standards shall be maintained throughout the lifetime of the project.

Means of validation

- Social responsibility statements in project design document.
- Design planning documentation.
- Woodland Benefits Tool

Means of verification

- Evidence confirming the social benefits of the project to date.

Guidance

See the UK Forestry Standard and the Forests and People element of sustainable forest management. The Woodland Benefits Tool provides scores for the biodiversity, water, community and economy benefits of projects. It is optional to monitor the social benefits of projects over time.

Further online guidance >

Glossary

Additionality – The term additionality is used to mean the carbon sequestration over and above that which would have happened anyway in the absence of a given project or activity. Buyers of carbon units want to know that their input has enabled more carbon sequestration than would otherwise have happened under existing legal, financial and business circumstances. Under the financial consideration, a project is only 'additional' if it requires carbon income to turn it from a project which is not financially viable/worthwhile (in its own right or compared to an alternative non-woodland use) to one which is financially viable.

Area – Carbon can be claimed for the net woodland area, rather than the gross area.

- **Net woodland area** is the area of a project planted with trees or allowed to colonise/regenerate naturally. It excludes any designed or other open areas.
- **Gross woodland area** is the area of a project including any open areas. This can include designed open ground as well as other open land or water bodies.

Assignment – Labelling/assigning a Pending Issuance Unit on the UK Land Carbon Registry with the name of the buyer. Assigned units cannot be re-sold, but they can be used and 'retired' once they are verified.

Barrier – Any obstacle to reaching a goal that can be overcome by a project or measure.

Buffer – A carbon pool of 'unclaimed carbon' to cover unavoidable potential losses which may occur from the project over time, thus ensuring the permanence of verified Woodland Carbon Units. The unit type for buffer units is 'PIU Reserve' or 'WCU Reserve'.

Carbon baseline – The projected changes to carbon on the site if the project weren't to go ahead (the 'business as usual' scenario). This is a reference projection to which the carbon benefits of project activities can be compared over the project lifetime.

Carbon pool – A system that can store and/or accumulate carbon, e.g. above-ground biomass, leaf/needle litter, dead wood and soil organic carbon.

Carbon reporting – This involves a carbon owner or organisation reporting carbon sequestration in their annual environmental or greenhouse gas report. This can only be done once, after the carbon is sequestered, and the relevant number of units should have been 'retired' from the UK Land Carbon Registry. See Carbon statement.

Carbon sequestration – Direct removal of carbon dioxide from the atmosphere through land-use change, afforestation, reforestation and/or increases in soil carbon.

Carbon statement – A statement of what a project will sequester or has sequestered to date. It can be restated by more than one party with an interest in a project. See Carbon reporting.

Carbon dioxide – A naturally occurring gas and by-product of burning fossil fuels or biomass, land-use changes and industrial processes. It is the principal anthropogenic (caused by human activity) greenhouse gas that affects the Earth's climate.

Climate change – Change or changes in the climate which can be directly or indirectly attributed to human activity (UNFCCC Article 1).

Compensatory planting – New woodland created to compensate for woodland lost elsewhere which provides at least the equivalent woodland-related net public benefit embodied in the woodland which was removed (e.g. for development (windfarms or in urban areas) or where woodland is removed to restore open habitats).

Deforestation – Permanent or long-term removal of woodland; the direct, human-induced conversion of forested land to another land use, or the long-term reduction of the tree canopy cover below the minimum 20% threshold.

Double-counting – There are a number of issues which might result in double-counting:
• **Double-selling** – The same carbon unit is sold more than once to different parties. The incidence of this can be minimised by the use of a carbon unit registry.
• **Double certification** – The same carbon project is validated/verified against two or more carbon standards. The incidence of this can be minimised by insisting that projects only use one registry and carbon registries ensure that a project is not already registered on another carbon registry.
• **Double-monetisation** – A carbon unit is monetised once as a voluntary unit by a project and a second time as a national-level Greenhouse Gas allowance.
• **Double-claiming** – An organisation or government makes a claim about the same unit of carbon reduction as another organisation. It may be perceived as satisfactory that an organisation claims 'we created a carbon neutral product' and another organisation claims 'we sell a carbon neutral product' or government claims 'we reached our emissions reduction target'.

Environmental Impact Assessment (EIA) – These regulations apply to forestry related projects. If the Forestry Commission/Scottish Forestry/Natural Resources Wales/ Northern Ireland Forest Service considers that project proposals may have a significant effect on the environment then the proposer must obtain consent for the work from the relevant body and submit an Environmental Statement as part of the application for consent.

Forest – See 'Woodland'.

Greenhouse gases – The gases which are causing the warming of the Earth's atmosphere that is leading to climate change. The six most common Greenhouse Gases are: carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons and sulphur-hexafluoride. These contribute to the 'greenhouse effect'.

Group scheme – A group of projects that work together to gain validation/verification. These projects will be coordinated and overseen by a group scheme manager. The group scheme manager is responsible for ensuring that all projects within the group conform to the Code.

Leakage – Any GHG emissions outside the project boundary as a result of the project (e.g. displacement of agricultural activities might result in deforestation or intensification of use of non-wooded land elsewhere).

Natural colonisation/regeneration – Plants growing on a previously unwooded site as a result of natural seedfall or suckering. The term is also used to describe the silvicultural practices used to encourage natural seeding and establishment.

Organic soil – Soil which contains more than 50 cm deep organic (or peat) surface horizon overlaying the mineral layer or rock.

Pending Issuance Unit (PIU) – The purpose of these units is to demonstrate the quantity of potential future sequestration. PIUs will help to keep track of up-front sales/purchases but they cannot be retired or used/reported.

Permanence – The issue of ensuring that removal of carbon dioxide from the atmosphere is permanent, and not reversed at a future point in time. Woodland projects carry a risk of reversibility and as such safeguards must be in place to minimise that risk and to guarantee replacement or alternative woodland should a reversal occur.

Project design document – a document created by the project developer for validation to describe how the project meets the requirements of the Code at the outset.

Project developer – The individual or company who represents a project/group through the validation/ verification process or in the UK Land Carbon Registry. The project developer could be the landowner, a third party representing the landowner, or the group manager.

Project duration – The time over which project activities are to be monitored, verified and carbon sequestration claims are to be made. Projects can be up to 100 years in duration.

Project end date – The last day a project accounts for carbon sequestration. Project end date = project start date + project duration. If start date = 01/04/2013 and project duration is 100 years, then end date is 31/03/2113.

Project implementation date – The date when work begins onsite – either fencing, deer control, ground preparation or
planting, whichever occurs first.

Project progress report – A report created by the project developer for verification to demonstrate how the project continues to meet the requirements of the Code.

Project start date – The date planting is complete (or for natural colonisation/regeneration, the date that fencing/ deer control is in place) and the projects starts to account for carbon sequestration.

Retire – Moving a Woodland Carbon Unit on the UK Land Carbon Registry to a publicly available 'retirement' account to show it has been taken out of circulation and cannot be used again.

Reversal – A reversal is when the net greenhouse gas benefit of a project, taking into account the baseline, leakage and project carbon sequestration, is negative in a given monitoring period. The size of the reversal is the net carbon sequestration at the current verification minus the net carbon sequestration at the previous verification.

Standard project – Single woodland creation project which can be any size and can constitute several individual blocks of woodland with planting spanning up to five consecutive planting seasons; blocks of woodland must be part of contiguous land ownership unit or must be under the same ownership and management plan.

UK Land Carbon Registry – The official record of the location of projects, the predicted and actual carbon sequestration as well as the owners and retirement of carbon units.

Validation – The initial evaluation of a project against the standards of the Woodland Carbon Code, undertaken by a certification body accredited by the UK Accreditation Service.

Validation/verification body – Independent third-party organisations accredited by the UK Accreditation Service to validate or verify Woodland Carbon Code projects.

Verification – The ongoing evaluation of a project against the standards of the Woodland Carbon Code, undertaken by a verification body accredited by the UK Accreditation Service. Verification assesses the carbon sequestration that has actually occurred as well as continuing sustainable forest management.

Vintage – The time period in which units are delivered. For the Woodland Carbon Code, the delivery of carbon is predicted and verified in five or ten-yearly blocks (e.g. 2020–2030); each time period is known as a vintage.

WCC – Woodland Carbon Code.

WCC secretariat – The WCC secretariat function is provided by Scottish Forestry on behalf of the forestry authorities across the UK.

Woodland – Land under stands of trees with a canopy cover of at least 20% (25% in Northern Ireland), or having the potential to achieve this. This definition includes integral open space and felled areas that are awaiting restocking (replanting). Consistent with the UK Forestry Standard, this includes short rotation coppice and short rotation forestry, but does not include individual trees, orchards, ornamental or garden trees, tree nurseries or the management of Christmas trees. (This definition is also applicable to 'forest').

Woodland Carbon Unit (WCU) – When a project is verified, PIUs which have been confirmed as sequestered will be converted to Woodland Carbon Units. These units can be considered as guaranteed, delivered carbon 'units', and as such can be retired and used/reported.

Woodland creation – The direct, human-induced conversion to woodland of land that has not previously been forested according to historical records. The Code sets a threshold of a continuous absence of woodland over the previous 25 years.