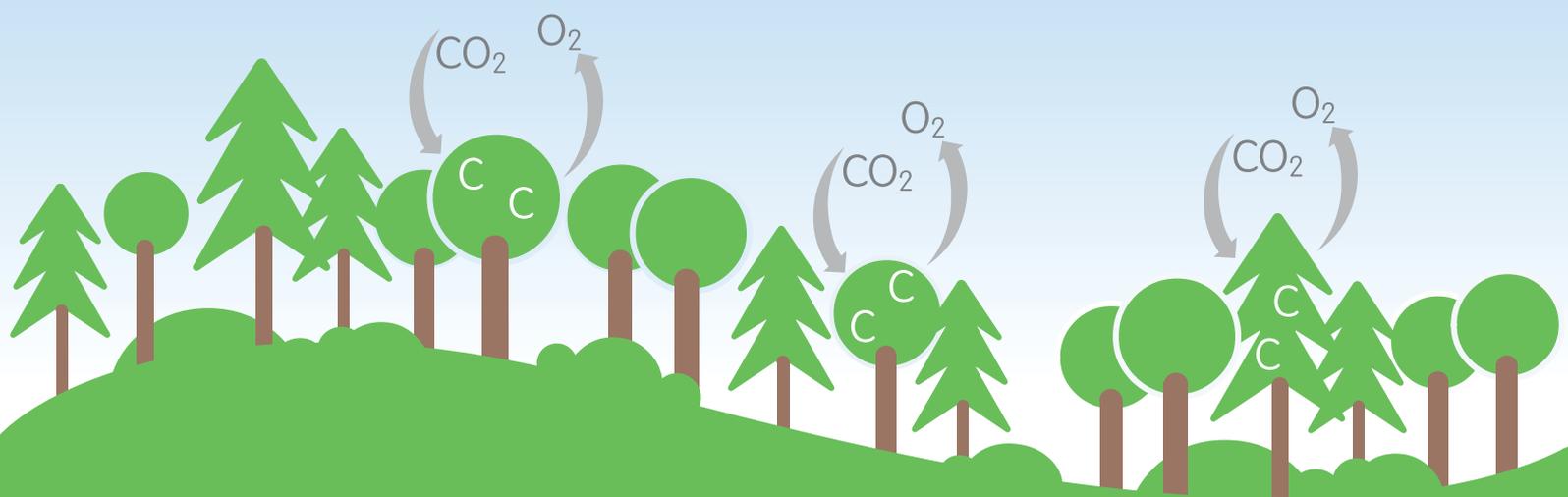


Woodland Carbon Code

Requirements for voluntary carbon sequestration projects



Version 2.0 March 2018

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Introduction

Background and purpose

Trees and forests can mitigate **climate change** through sequestering carbon. **Woodland creation** therefore provides an attractive option for companies, organisations and individuals wishing to reduce their carbon footprint while also delivering a range of other environmental and social benefits.

The Woodland Carbon Code (**WCC**) sets out robust requirements for voluntary **carbon sequestration** projects that incorporate core principles of good carbon management as part of sustainable forest management. Landowners and their successors in title must commit to a permanent change of land use to woodland. Specific objectives of the Code are to ensure:

- high standards of sustainable forest management in line with the UK Forestry Standard including the elements of sustainable forest management;
- best practice in woodland carbon accounting;
- scientifically sound forest carbon measurement protocols that enable consistent and rigorous measurement of carbon uptake in woodlands;
- integrity through independent quality assurance (**validation** and regular **verification**);
- open and transparent project registration, issuance, tracking and **retirement** of carbon units.

Woodland creation can also provide many co-benefits in addition to **carbon sequestration**. Woodlands can improve air quality and provide wildlife habitat, timber and woodfuel as well as sites for public recreation. In the right places they can reduce flooding and improve water quality. They can also provide opportunities for community engagement, staff volunteering, education and development as well as rural business development and diversification.

Scope

The Code sets out design and management requirements for voluntary UK based projects that sequester carbon through **woodland creation**. In scope it accounts for **carbon sequestration** and emissions within the woodland. It does not account for carbon stored in forest products or the carbon saved when substituting wood products for other products with a larger carbon footprint.

Application Process

Registration

All projects should be registered on the **UK Woodland Carbon Registry** within two years of the start of planting. In order to register a project, a **project developer**/landowner should first set up an account on the registry, and then add their project(s) to their account. In order to do this, applicants also need to decide whether to use the **'Standard'** or **'Small Project Process'**, and whether to register their project alone, or as part of a **group scheme**. Registration is free.

'Standard' and 'Small' sized projects

A **standard 'project'** 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 a contiguous land ownership unit or must be under the same ownership and management plan.

For **'small' projects** (same definition as a standard project, but with five hectares net planting area or less), there are optional streamlined requirements/processes which can be used for **validation** and **verification**, specifically:

- A simplified carbon calculator for small projects.
- Default assumptions made for some sections of the requirements (e.g. **baseline** and **leakage**).
- A less intensive 'Small Project Monitoring Protocol' from Year 15.

The **WCC** standard and guidance make clear where requirements differ for projects using the 'Small Project Process'.

Grouping projects for validation or verification

Projects can be registered alone, or as part of a **group scheme**. Grouped projects benefit from sharing costs of **validation** and **verification**. A group of projects can span no more than five consecutive planting seasons and be constituted of:

- up to 15 **'standard' projects**; and
- up to 50 hectares (net) area in **'small' projects**;

Ideally, groups will be formed prior to validation, but it is also possible to form a group for the purposes of

verification. If a group is formed for verification, the **project start dates** within the group should be within two years of each other (this also means their verifications will be due within two years of each other). A group requires a Group Manager and a Group Agreement (See Section 2.1). Once projects are grouped, the grouping should remain the same for each subsequent verification.

Validation

All **WCC** projects or **group schemes** must be initially **validated** by an independent **validation/verification body** accredited by the UK Accreditation Service to assess against the WCC. In order to become validated, projects or groups of projects must submit a **Project Design Document** with supporting evidence to a validation/verification body. Validation should be complete within three years of registration, and can only be completed once the trees are planted, or fencing/deer control is in place if naturally regenerating.

Once validated, **Pending Issuance Units** will be issued on the **UK Woodland Carbon Registry**. There is a cost for validation and for unit issuance.

Regular Verification

Projects or **group schemes** must be regularly **verified** at least at Year 5 and then every ten years by an independent **validation/verification body**. To become verified:

- Single projects or groups must undertake monitoring onsite and submit a **Project Progress Report** and **Monitoring Report** with supporting evidence to a validation/verification body.
- The process is simpler for **'small' projects** from Year 15 onwards.

The validation/verification body will check that statements about predicted or actual **carbon sequestration** are materially correct, with a reasonable level of assurance, except at Year 5 when a limited level of assurance will be offered.

Once verified, any **Pending Issuance Units** realised will be converted to **Woodland Carbon Units**. There is a cost for verification and for conversion of units.

If at any point there is no UK Accreditation Service accredited validation/verification body for the WCC, the WCC scheme owner (currently the Forestry Commission) will put temporary validation/verification arrangements in place.

Costs and income through involvement in the Woodland Carbon Code

There are some costs of involvement in the Woodland Carbon Code. Further details are available in the online guidance.

- Registration is free.
- **Validation** incurs a cost (payable to the validation/verification body).
- Issuance of **Pending Issuance Units** incurs a per unit cost (payable to the registry provider at the time of validation).
- **Verification** incurs a cost (payable to the validation/verification body).
- Conversion of units from **Pending Issuance Units** to **Woodland Carbon units** incurs a per unit cost (payable to the registry provider at the time of verification).

Carbon income from the sale of carbon units are expected to cover the costs of involvement in the scheme.

The **WCC** is a voluntary standard and verification does not imply endorsement by the Forestry Commission of the value of any investment.

Use of Woodland Carbon Units

Woodland carbon projects contribute to just one of a hierarchy of actions that can help to combat the effects of **climate change**. Before considering such measures individuals, businesses and other organisations need to:

- understand their carbon footprint;
- take steps to prevent avoidable emissions;
- reduce any remaining emissions.

Once verified, carbon units created by Woodland Carbon Code projects are known as **Woodland Carbon Units**. Until that point they are referred to as **Pending Issuance Units**. One unit is one tonne of carbon dioxide equivalent (tCO₂) sequestered.

All organisations are encouraged to voluntarily measure and report their gross and net **greenhouse gas** emissions. Verified **Woodland Carbon Units** are one type of 'credit' that can be used to reduce a company's gross emissions under UK government guidance: Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance. PAS2060:2014 Specification for the Demonstration of Carbon Neutrality also clarifies how verified **Woodland Carbon Units** can be used in claims of carbon neutrality of an organisation's activities, products, services, buildings, projects or events.

Carbon sequestration resulting from projects validated/verified to the Code will, in common with other woodland creation, contribute directly to the UK's/Scotland's national **greenhouse gas** emissions reduction targets (as set out in the UK Climate Change Act, 2008, and the Climate Change (Scotland) Act, 2009). Sequestration from projects will also contribute to the UK's international commitments (under the **Kyoto Protocol** and the **Paris Agreement**). In the Clean Growth Plan (2018) the UK government commits to create a stronger and more attractive domestic carbon offset market, but **Woodland Carbon Units** cannot yet be used in regulatory carbon reduction mechanisms (e.g. the EU Emissions Trading System), or traded internationally.

Governance

The **WCC** Executive Board (with representatives from the Forestry Commission England/Scotland and Welsh Government) manage the WCC scheme. They are advised by the WCC Advisory Board whose members include forestry and carbon market experts. A WCC Disputes Panel meet as necessary to deal with any disputes relating to interpretation of the standard.

Woodland Carbon Code logo

Landowners, **project developers** or carbon buyers of validated/verified projects may use the Woodland Carbon Code logo and should do so in accordance with the [Rules of Use](#).

Future changes to the Code

This is Version 2.0 of the Woodland Carbon Code released in March 2018. Additional guidance and interpretation is available at www.forestry.gov.uk/carboncode. The Code is reviewed annually, to ensure the standards it contains are clear and reflect best practice.

Updates to the Code and the supporting guidance are available at www.forestry.gov.uk/carboncode. Please refer to this website for the most up to date version.

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

The structure of the Code

The Code sets out principles and requirements for best practice in woodland carbon sequestration 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.

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

The validation/verification body will take into account the size of the project when assessing what evidence is required.

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 in the period from two years before to two years after the **project implementation date** (the start of planting).

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. A validation extension may be given in extenuating circumstances.

Validation Statements shall only be issued once planting is completed.

Projects shall have a clearly defined duration and shall not exceed a hundred years.

Means of Validation

- ▶ Project Design Document.
- ▶ Grant scheme contract.

Means of Verification

- ✗ Not required unless changes are made to the project duration.

Guidance

The **project implementation date** is the date when planting begins. The **project start date** is the last date of planting and the date from which carbon sequestration 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 **start date** and is the time over which carbon sequestration 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 **group start date** is the last date of planting (or latest project start date) within the group.

The **project registration date** is the date on which a project moves from 'Draft' to 'Under Development' status on the UK Woodland 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.

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 England/Scotland, 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 (see Section 3.1).
- ▶ Soil maps.
- ▶ Signed attestation from independent expert.

Means of Verification

- ✗ 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 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.

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 for the duration of the project, shall be demonstrated.

Means of Validation

- ▶ Declaration in Project Design Document detailing nature of ownership and landowner/tenant contact details and if leased, tenure documentation and landlords consent.
- ▶ Solicitor's letter.
- ▶ Title deeds.
- ▶ Land registry records.
- ▶ Grant contract signed by owner.
- ▶ Certified copy of lease (if leasehold) or other evidence to confirm landowner's consent.

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.

Guidance

Validation/verification is not a legal compliance audit. The validation/ verification body will check there is no evidence of non-compliance with relevant legal requirements, and that no issues of non-compliance are raised by regulatory authorities or other interested parties. The main legislation relevant to Sustainable Forest Management is set out in the [UK Forestry Standard](#). See also Section 2.1.

[Further online guidance >](#)

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

Additionality shall be demonstrated through the following tests. Test 1 and Test 2 plus **one of** Test 3 or Test 4 must be passed to ensure additionality.

1. Legal test: There is no legal requirement specifying that woodlands should be created. **Compensatory planting** is not eligible.
2. Contribution of Carbon Finance test: Carbon finance payments shall equate to at least 15% of the project's planting and establishment costs up to Year 10.
3. Investment test: Projects shall demonstrate that without carbon 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.
4. Barrier test: Existing **barriers** to the implementation of the project have been overcome. **Barriers** could be social, economic or environmental.

Means of Validation

- ▶ Statements in Project Design Document.
- ▶ Financial analysis for Test 2 and 3:
 - A full financial analysis (including expected costs and revenues) of the funds required to implement and manage for the **project duration** (Test 3).
 - A sub-analysis of the actual planting and establishment costs to Year 10 and the proportion covered by carbon finance (Test 2).
- ▶ Further evidence to support barrier test if used.

Means of Verification

- ✗ Not required.

Guidance

Projects receiving grant aid under a government-funded initiative are eligible provided additionality tests are met.

A template WCC Additionality Spreadsheet is available. Project developers can use it to demonstrate how Tests 2 and 3 are met by setting out expected costs and revenues.

For a group, Tests 2–4 can be carried out at project-group level provided similar funding models/arrangements (Test 2 & 3) or similar barriers (Test 4) apply to all constituent projects. Where one or more constituent projects are significantly different in these aspects, additionality should be assessed for each constituent project.

[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 and carbon.

2.1 Commitment of Landowners and Project Developers/Group Managers

Requirement

The landowner 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) of the commitment to the Woodland Carbon Code and any carbon 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, notify the Forestry Commission immediately and submit a Loss Report within six months of discovery (2.3).
- 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 Woodland Carbon Registry** (either in their own account or via the project/group manager's – 2.6).
- Make true and accurate **carbon statements** about the project which conform with guidance (2.7).
- Abide by the [WCC logo rules of use](#).

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 Woodland Carbon Registry** (2.6).
- Make true and accurate **carbon statements** about the project which comply with guidance (2.7).
- Make carbon buyers aware of the **WCC** guidance on carbon claims and include 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 rights and commitments (including consideration of whether the carbon is 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, or contracts between the landowner and project developer to confirm the landowner's and project developer's commitment to the standard as detailed above and in the online guidance.
- ▶ Group Agreement.

Means of Verification

- ▶ Updated commitment from the landowner or updated group agreement if the landowner or 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.
- A map of the areas being planted.

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.
- ▶ Planting 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/ planting plans 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 Woodland Carbon Code **Buffer**.
- Ensuring re-stocking where projects involve harvesting.
- 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 carbon contracts.

Should a project experience a loss of carbon, the landowner shall

- Notify the Forestry Commission immediately.
- Submit a Loss Report to the Forestry Commission within six months of discovery of the loss.

Means of Validation

- ▶ Further evidence to confirm assessment of risk.
- ▶ Subtraction of carbon **buffer** in Net Carbon Sequestration (Section 3.4).
- ▶ Evidence of contracts with or a signed 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 Forestry Commission 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.

Guidance

Permanence describes the issue of ensuring 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.

Risk management should be built in at every stage of project design. The purpose of the WCC Buffer is to protect the integrity of verified Woodland Carbon Units in the event of a **reversal** and a net loss of sequestered carbon from a project. From Version 2.0 of the standard, all projects contribute 20% to the **WCC Buffer**. In Version 1.3 of the WCC and earlier, projects contributed an amount based on the level of risk of their project.

A template Loss Report is available. Any Loss Reports submitted will be publicly available in the UK Woodland Carbon Registry. See Section 2.1 for a summary of landowner commitments.

[Further online guidance >](#)

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 life-span 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 www.forestry.gov.uk/toolbox

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

The project shall have a monitoring plan in place before **validation**, to quantify and document the progress of **carbon sequestration** as well as ensure that the project continues to be sustainably managed.

Verification shall take place five years, and then every ten years after the **project start date**. Projects shall be monitored 6–12 months prior to each verification due-date to allow time for verification to be carried out by the due-date. If there are extenuating circumstances for a delay, the project shall seek the approval of the Forestry Commission. If approval is granted, a Verification Extension Approval shall be uploaded to the **UK Woodland Carbon Registry**.

At Year 5, the 'Year 5 Monitoring Protocol' shall be followed for all projects, whether 'standard' or '**small**' projects.

From Year 15 onwards, the Carbon Assessment Protocol shall be followed for '**standard**' projects. There is a more basic monitoring process for '**small**' projects. Single projects or groups shall submit a **Project Progress Report** alongside the relevant **Monitoring Report**.

Corrective actions shall be undertaken if establishment and/or tree growth and **carbon sequestration** rates do not meet expectations.

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.
- ▶ Other evidence as specified in the relevant monitoring protocol.
- ▶ Other evidence to show that corrective actions have been undertaken.

Guidance

Monitoring is required to demonstrate successful woodland establishment and assess actual tree growth and carbon sequestration rates. For projects validated under Version 1.2 of the Code or earlier, timings for the first verification may vary. Verification is due by the date indicated on the validation/verification Statement.

[Further online guidance >](#)

2.6 Registry and avoidance of double counting

Requirement

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

Upon validation, **Pending Issuance Units** (PIUs) shall be listed for all carbon units in the project.

Any **Pending Issuance Units** sold in advance of verification shall either be transferred to the relevant buyer’s account or ‘assigned’ to that buyer.

At each verification, **Pending Issuance Units** for that **vintage** shall be cancelled and the verified number of **Woodland Carbon Units** (WCUs) issued.

Prior to using **Woodland Carbon Units** in any reports, they shall be ‘retired’ from the **UK Woodland Carbon Registry**.

Project developers shall comply with the [Registry Rules of Use](#).

Means of Validation

- ▶ The landowner, project developer or group manager has an account on the UK Woodland Carbon Registry.
- ▶ The project is recorded on the UK Woodland Carbon Registry.
- ▶ Signed commitment that the project developer will ensure the project and carbon units are accurately represented on the registry (See Section 2.1).

Means of Verification

- ▶ Confirmation in Project Progress Report that project is not certified/ approved by another carbon standard.
- ▶ Pending Issuance Units are listed, Woodland Carbon Units are issued and units appear in the public view in the account of the current owner, or are assigned to the current owner, on the UK Woodland Carbon Registry.
- ▶ Carbon units are shown as retired from the UK Woodland Carbon Registry upon use.

Guidance

The UK Woodland Carbon Registry gives details of Projects, Pending Issuance Unit listings, Woodland Carbon Unit issuances, transfers, assignments and retirement. This service is provided by Markit Registry.

Prior to verification, units will be defined as ‘Pending Issuance’ and are effectively a promise to deliver verified units. These can be transferred or assigned to a buyer in advance of delivery. Verified Woodland Carbon Units can be retired for use in a company’s environmental or greenhouse gas report or in claims of carbon neutrality. See Section 2.7 on carbon claims. See online guidance for registry rules of use and fees.

[Further online guidance >](#)

2.7 Carbon statements and reporting

Requirement

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

Any **carbon 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 sequestration shall clearly state the timescale over which the carbon is to be sequestered.

Carbon removals shall only be reported, or used, after carbon is sequestered and verified (i.e. **Woodland Carbon Units**) in accordance with guidance. This is sometimes called ex-post reporting.

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 statements/reports** follow the WCC claims guidance.
- ▶ No evidence of non-compliance with WCC claims guidance.

Guidance

A **carbon statement** is simply 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. Carbon units can only be **reported** (used) by the buyer/owner, after verification by the landowner.

Both the UK Government's Environmental Reporting Guidelines: Including Mandatory Greenhouse Gas Emissions Reporting Guidance and the British Standards Institute's PAS2060:2014 Specification for the Demonstration of Carbon Neutrality state how verified Woodland Carbon Units can be used. Anyone making carbon or other environmental claims should also refer to Defra's Green Claims Guidance. See Section 2.6 on how carbon units are represented in the UK Woodland Carbon Registry.

[Further online guidance >](#)

3 Carbon sequestration

Principle

Projects should follow best practice in carbon accounting.

3.1 Carbon baseline

Requirement

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

Project developers shall estimate the **baseline**, or changes in the carbon stock at the site for the duration of the project in the absence of the project activities (i.e. business as usual).

Where the carbon **baseline** shows significant sequestration, it shall be accounted for in 'net carbon sequestration' (Section 3.4). Otherwise, the carbon **baseline** is assumed to be 'No change over time'.

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 baseline calculations:

- ▶ Carbon baseline calculations in Project Design Document.
- ▶ More detailed calculations of carbon baseline.

Means of Verification

- ✗ Not required.

Guidance

A carbon baseline is the reference sequestration over time from which the impact of the project can be measured. It is based on a continuation of the current land use in the absence of the project.

Changes to baseline are significant if they are $\geq 5\%$ of the project carbon sequestration over the duration of the project.

Carbon pools included:

- Tree above and below ground biomass
- Litter and deadwood
- Non-tree above and below ground biomass
- Soil

[Further online guidance >](#)

3.2 Carbon 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 GHG emissions.

If significant GHG emissions occur they shall be quantified for the duration of the project and accounted for in 'net carbon sequestration' (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 land owner 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 is 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).

Leakage is significant if it results in GHG emissions of magnitude $\geq 5\%$ of the project carbon sequestration over the duration of the project

Carbon pools included:

- Tree above and below ground biomass
- Litter and deadwood
- Non-tree above and below ground biomass
- Soil
- GHG emissions to manage the land which has changed use

[Further online guidance >](#)

3.3 Project carbon sequestration

Requirement

Emissions resulting from the preparation of a site prior to planting, shall be calculated and subtracted from the project **carbon sequestration** at Year 1. This includes losses of carbon through removal of vegetation (trees or other biomass) or disturbance of the soil.

Project developers shall use the relevant template WCC Carbon Calculation Spreadsheet (Standard or **Small Project**) to predict the project carbon sequestration.

Carbon sequestration in woodland biomass shall be restricted to the **long-term average carbon stock** that is projected to accumulate on the site.

Means of Validation

- ▶ WCC Carbon Calculation Spreadsheet (Standard or **Small Project** worksheet).

Means of Verification

- ▶ Updated WCC Carbon Calculation Spreadsheet (Standard or **Small Project** worksheet), if required.

Guidance

The template WCC Carbon Calculation Spreadsheet refers to the Biomass and Soil Carbon Lookup Tables. There is a 'Standard Project' and 'Small Project' version. Carbon Calculations will be publicly available in the UK Woodland Carbon Registry.

Carbon pools included:

- Tree above and below ground biomass
- Litter and deadwood
- Non-tree above and below ground biomass (at project outset)
- Soil
- GHG emissions from woodland management

[Further online guidance >](#)

3.4 Net carbon sequestration

Requirement

Net project carbon sequestration shall be calculated within the relevant worksheet (**Standard Project** or **Small Project**) of the WCC Carbon Calculation Spreadsheet (includes total project carbon sequestration (3.3) adjusted for leakage (3.2) minus baseline (3.1)).

The predicted number of carbon units by **vintage** shall be identified according to the project's verification schedule. These shall be divided into the contribution to the WCC **buffer** and the claimable carbon sequestration.

The net carbon sequestered to date and carbon sequestered in the current **vintage**/monitoring period shall be confirmed in the **Monitoring Report**. At Year 5, this is based on the projected carbon sequestration. From Year 15 onwards, this is based on field survey measurements.

Means of Validation

- ▶ WCC Carbon Calculation Spreadsheet .
- ▶ Pending Issuance Units by vintage in Project Design Document.

Means of Verification

- ▶ Confirmation of carbon sequestered to date and carbon sequestered in current vintage from Monitoring Report
- ▶ Updated WCC Carbon Calculation Spreadsheet, if required.

Guidance

Net Project Carbon Sequestration is the total amount of carbon sequestered by the project which can be converted into carbon units. These are divided between the proportion that will contribute to the shared WCC Buffer, and the claimable carbon sequestration which is the amount the project can sell.

[Further online guidance >](#)

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 where not 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.
- ▶ 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). Project developers can use the Woodland Benefits Tool as a way of consistently presenting the likely environmental outcomes of their 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.

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. Project developers can use the Woodland Benefits Tool as a way of consistently presenting the likely social outcomes of their projects. It is optional to monitor the social benefits of projects over time.

[Further online guidance >](#)

Glossary

Additionality – A project is ‘additional’ if it, and the activities supported by it, are not legally required and could not have happened without carbon finance.

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 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 Woodland 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.

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.

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 credits is ‘PIU Reserve’ or ‘WCU Reserve’.

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 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 Woodland 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 (CO₂) – 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.

Carbon offsetting – A way of compensating for **greenhouse gas** emissions by making an equivalent carbon dioxide saving elsewhere. This currently involves calculating emissions and then purchasing Kyoto compliant ‘credits’ from emission-reduction projects elsewhere. Kyoto compliant **woodland creation** can currently only occur outside the UK. This will change in 2020 once the **Paris Agreement** comes into effect.

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 in an Annex 1 country is monetised once as a voluntary unit by a project and a second time by the project host-country's government as an allowance (Assigned Amount Unit or Removal Unit). This is an issue in most Annex 1 countries.
- **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 claim '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/Natural Resources Wales/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 (GHGs) – Greenhouse gases. The gases which are causing the warming of the Earth's atmosphere that is leading to climate change. The **Kyoto Protocol** deals with six of these: 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.

Kyoto Protocol – the Kyoto Protocol is an international agreement linked to the UKFCCC. The major feature of the Kyoto Protocol is that it set binding targets for 37 industrialised countries and the EC for reducing GHG emissions in the first accounting period of the Protocol (2008 and 2012). In 2012 the Durban Agreement has set accounting rules for the second accounting period (2013–2020). See also the **Paris Agreement** at www.unfccc.int

Leakage – is 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).

Long-term average carbon stock – The mean carbon stock over the long-term in a woodland, averaged over several whole rotations, if clearfelling. For projects where there is no clearfelling the long-term average is assumed to be no less than the carbon predicted to be sequestered by Year 100, for a given scenario. For sites where clearfelling is proposed, then the long-term average is calculated over several whole rotations of a given length, where the carbon stock onsite varies from zero at the start of each rotation to a maximum just prior to clearfelling.

Monitoring Report – A report/spreadsheet summarising the results of monitoring by field survey carried out prior to each verification.

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

Paris Agreement – the Paris Agreement, which came into force in 2016, is the international agreement, following on from the **Kyoto Protocol**, in which every country determines, plans and regularly reports its contribution to mitigate climate change. At the time of writing it had been ratified by over 85% of 197 countries. See also the **Kyoto Protocol** at www.unfccc.int

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 Woodland Carbon Registry. The project developer could be the land owner, 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 planting begins (or fencing/deer control for natural regeneration).

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 Registration Date – The date when a project moves from 'Draft' to 'Under Development' status in the **UK Woodland Carbon Registry**.

Retire – Moving a **Woodland Carbon Unit** on the UK Woodland 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**.

'**Small**' **project** is a **single project** with five hectare net planting area or less where the small project process is used.

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

UK Woodland 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 certification body accredited by the UK Accreditation Service to assess against the WCC. Verification assesses the carbon sequestration that has actually occurred as well as continuing sustainable forest management.

Vintage – The time period in which credits are delivered. For the Woodland Carbon Code, the delivery of carbon is predicted and verified in five or ten-yearly blocks (e.g. 2017–2027); each time period is known as a vintage.

WCC – Woodland Carbon Code.

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). (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 transferred to WCUs. These units can be considered as guaranteed, delivered carbon 'credits', 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.

