



Peatland Programme

# PEATLAND CODE

Three decorative icons are placed to the right of the word "CODE". The first is a white sunburst icon on a light grey background. The second is a white swan icon on a yellow background. The third is a white leaf icon on a green background.

**Version 2.1**

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Enquiries relating to the Peatland Code should be sent to: [peatlandcode@iucn.org.uk](mailto:peatlandcode@iucn.org.uk)

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# The Peatland Code

The Peatland Code is the quality assurance standard for peatland restoration projects in the UK and generates independently verified carbon units. Alongside this Peatland Code v2.1, the Peatland Code Field Protocol v2.1 and Peatland Code Guidance v2.1 shall be used for additional guidance for project developers. Any minor changes and clarifications to the Peatland Code and the Guidance document that occur between version updates will be published in the [revisions and clarification guidance document](#). This document shall supersede the earlier versions of the relevant Peatland Code document sections.

Specific requirements or Validation and Verification bodies (VVBs) are outlined in a separate document Validation and Verification Scheme document v1.0.

## Definitions

This document employs the following definitions:

**Shall:** represents a mandatory requirement

**Should:** represents recommendations or best practices that project developers should aim to implement in their projects

**May:** represents a course of action permissible by the Peatland Code

## Normative References

This document shall be read in conjunction with:

- Peatland Code Guidance v2.1
- Field Protocol v2.1
- Validation and Verification Scheme document (VVB only)

## Scope

The Peatland Code specifies requirements for the validation and verification of a greenhouse gas (GHG) assertion from voluntary UK based projects which actively reduce GHG emissions through peatland restoration, resulting in less cumulative carbon in the atmosphere compared to a business-as-usual scenario similar to a woodland planting scheme. The European Union Certification Framework for Carbon Removals (2022), classifies this as a removal. Peatland Code projects and their greenhouse gas (GHG) assertions will be validated and verified by an independent third-party Validation and Verification Body (VVB) and ISO 14065:2020 with ISO 14064-3:2019 shall be used as the governing standard for Peatland Code validation and verification delivery.

Peatland Code carbon units (PCUs) account for both GHG reductions from, and carbon sequestered by, the peatland. They do not account for carbon already stored within the peatland or the carbon saved when substituting peat products for products with a lower carbon footprint. The Peatland Code is the quality assurance standard for peatland restoration projects in the UK and generates independently verified carbon units which shall be verified to a limited or reasonable level of assurance.

Backed by the UK Government and governed by an Executive Board, a Technical Advisory Board with key experts from the industry, policy and research community, and a Market and Investment Forum, with players with an economic interest in the Peatland Code, the Peatland Code offers the UK's only official peatland carbon units. These units can be purchased and retired by companies operating under the UK Government's Environmental Reporting Guidelines, as well as by companies that do not fall under these guidelines. Currently these carbon units can only be used to offset UK based emissions.

## 1. Eligibility and Governance

### 1.1 Eligible Activities

There are three broad peatland types in the UK: blanket bog, raised bog and fen see the glossary and Peatland Code Field Protocol for definitions.

#### Requirement

Projects shall abide by UK Laws and Regulations including the Human Rights Act 1998.

Eligible activities shall be those relating to restoration of:

- Either blanket bog or raised bog with an associated baseline condition category of:
  - ◇ Actively eroding
  - ◇ Drained
  - ◇ Modified bog
  - ◇ Cropland - drained<sup>1</sup>
  - ◇ Grassland - intensive<sup>1</sup>
  - ◇ Grassland - extensive<sup>1</sup>
- or fen with an associated baseline condition category of:
  - ◇ Cropland-drained
  - ◇ Grassland - intensive
  - ◇ Grassland - extensive
  - ◇ Modified fen
- Areas with a minimum peat depth of:
  - ◇ 45 cm in fens with the baseline condition category grassland or modified fen
  - ◇ Cropland – drained condition category and Grassland that used to be cropland in the past 20 years can have a lower minimum peat depth than 45 cm if the project evidences that the Soil Organic Carbon stock is more than 30 times the Emission Factor for CO<sub>2</sub>-C emissions for the relevant baseline category
  - ◇ 30 cm in bogs. With the additional requirement in bogs that areas with peat depth between 30 and 50 cm shall be part of a restoration project dominated by areas of deeper peat. Areas of continuously shallow peat are excluded (see below).

The Peatland Code defines continuous shallow peat areas for the drained and modified baseline condition categories as follows: three or more peat depth points on a 50 x 50 m grid, connected in any direction, consistently measuring between 30cm and 50cm; the whole area is not eligible. Isolated shallow pockets falling in the drained and modified baseline condition categories within the 30cm to 50cm range are accepted for restoration projects if less than three connected peat depth points on a 50 x 50 m grid are surrounded by deeper peat (>50cm). Any peat depth points between 30cm and 50cm in the actively eroding baseline condition category are eligible, no matter the size of the area.

Baseline condition category, peat depth and Soil Organic Carbon stock shall be determined using the [Peatland Code Field Protocol](#). Restoration shall be achieved as a result of both restoration and management activities. Restoration activities shall revegetate and/or rewet the peatland (excluding removal of trees for which a felling license is required) and shall result in a change to a condition category with a lower associated emissions factor.

The creation of large areas of standing water within a restoration site is undesirable, due to the potential for methane emissions from the area of standing water and wave action risking the integrity of the vegetation at the water's edge. Areas of standing water on site shall be discrete and part of a mosaic within the vegetation, otherwise these area will be classed as large. Management activities shall maintain or enhance the condition category change, an approved validation/verification body will assess whether the combination of restoration interventions and ongoing management of the site is sufficient to maintain the peatland in an enhanced condition. Restoration and management activities shall not conflict with existing land management agreements. Further guidance on eligibility criteria can be found in the [Peatland Code Guidance v2.1 Document](#).

1. Please note that the fen section in the Field Protocol shall be used, since these will first transition to rewetted fen.



## 1.2 Project Duration

### *Requirement*

The project shall have a clearly defined duration. Minimum project duration shall be 30 years.

For projects with durations exceeding 30 years, the project shall demonstrate that there is an adequate peat resource present on the site to ensure that the duration of the claim does not exceed the point at which the peatland resource would be depleted under the baseline 'do-nothing' scenario.

Peat depth and where necessary soil organic carbon (SOC) stock across the site shall be determined using the Peatland Code Field Protocol. A minimum 75% of peat depth or SOC stock survey points (for bogs, only points on the 100 x 100 m grid are included as per the Field Protocol) within all assessment units shall exceed the minimum peat depth or SOC stock needed for the project duration (see guidance below).

### Guidance

Peat is a finite resource and in poor condition it decreases in depth/volume as opposed to increasing.

Assuming a maximum loss of 1 cm per year in blanket or raised bogs and 1.5 cm per year in fens<sup>1</sup>, a peatland resource of 50 cm depth would no longer be present in 50 and 33 years' time respectively, if restoration activities were not undertaken. Any associated emissions claimed after this 50 or 33-year period would therefore no longer be accurate or relevant. The minimum peat depth in blanket and raised bog for projects to be eligible under the Peatland Code is 30 cm and in fens with grassland and modified fen condition categories it is 45cm. Therefore, to claim emissions reductions over more than 30 years it is necessary to provide evidence that the project duration shall not exceed complete loss of the peatland resource within the project site in the 'do nothing' baseline scenario outlined above.

Providing evidence of peat depths and in line with the above assumption of 1 cm and 1.5 cm peat loss per year in a degraded state will inform the maximum potential duration of a claim from that project, keeping in mind the above assumption of 1 cm and 1.5 cm peat loss per year from a peatland in a degraded state.

For example, a bog project of 75 years would require a minimum peat depth of 75 cm for 75% of the peat depth points in the assessment units. A fen project of 100 years duration would require a minimum peat depth of 1.5 m for 75% of the peat depth points in the assessment units; in all circumstances, peat depth across the site shall be determined using the Peatland Code Field Protocol.

Evidence<sup>2</sup> shows that shallow fen soils with the condition category "cropland- drained" have the potential to store disproportionately high levels of carbon. Therefore, it can be valid to include a fen soil shallower than 45 cm and still meet the minimum 30-year project length. To calculate this, take the SOC stock per ha of peat remaining, and divide that by the emission factor for the current land-use (in t C ha<sup>-1</sup> yr<sup>-1</sup>) to estimate the number of years of carbon you have left to lose under current management.

For "Cropland - drained" condition category and "Grassland" that used to be cropland in the past 20 years with less than 75% of peat depths greater than or equal to 45 cm: A minimum of 75% of the SOC stock recorded within all assessment units shall be greater than 30 times the Emission Factor for CO<sub>2</sub>-C emissions for the relevant baseline category (see Field Protocol). For projects over 30 years, projects need to show that at least 75% of SOC stock recorded within all assessment units exceed the minimum SOC stock needed for the project duration. For example, a 50-year project length needs 50 times the Emission Factor for CO<sub>2</sub>-C emissions for the relevant baseline category.

Due to the nature of water table management in the lowlands and the risk that this causes for reversals, fen projects will have a great need to evidence permanence beyond the project length. This could be done by entering in a long-term legal agreement, like a conservation covenant in England and conservation burden in Scotland.

1 Evans, C. D., Williamson, J. M., Kacaribu, F., Irawan, D., Suardiwerianto, Y., Hidayat, M. F., Laurén, A. and Page, S. E. (2019) Rates and spatial variability of peat subsidence in Acacia plantation and forest landscapes in Sumatra, Indonesia

2. Liang, Z., Hermansen, C., Weber, P.L. et al. Underestimation of carbon dioxide emissions from organic-rich agricultural soils. *Commun Earth Environ* 5, 286 (2024). <https://doi.org/10.1038/s43247-024-01459-8> <https://www.nature.com/articles/s43247-024-01459-8>

### 1.3 Eligible Land

#### Requirement

Legal ownership or tenure of the land for the duration of the project shall be demonstrated for the project area. If the project area is registered, ownership shall be evidenced by title registers and plans in the Land Registry. Other suitable forms of evidence include title deeds or a solicitor's or chartered surveyor's letter. If the land is leased, then a certified copy of the lease by a solicitor or chartered surveyor shall be provided to the VVB. If the land within the project area is under tenure, written consent shall be obtained from the landowner, including an agreement that the obligation for delivery of the project shall be transferred to the landowner should the tenancy end before conclusion of the project. Consent shall be "Free, Prior and Informed". If the land is sold, the current landowner shall inform the future landowners of the commitment to the Peatland Code and any carbon contracts.

#### **Guidance**

An example of new activity to drain and/or remove vegetation would be the digging of drains on an otherwise undrained area or the removal of peat via peat cutting at a previously uncut site. Grazing or burning on a site that has been under agricultural and/or game management prior to November 2015 would not be considered a new activity. November 2015 relates to the date of publication of the Peatland Code 1.0 and is set as a benchmark to ensure that any financial incentives offered as a result of the Peatland Code do not incentivise peatland damage.

### 1.4 Consultation<sup>3</sup>

#### Requirement

The project shall identify communities of place relevant to the project boundary, and the groups within these communities that are most relevant to engage with the project, including marginalised and/or vulnerable groups, where these exist. Projects shall use a range of communication approaches appropriate to the context consent shall be Free, Prior and Informed Consent (FPIC). The project shall demonstrate evidence of the consultation process in the Project Design Document (PDD). The project shall also identify key communities and organisations of interest that are not located in proximity to the project boundary, but who have a material interest in the project area that could be enhanced or compromised by the project, including marginalised and/or vulnerable groups, where these exist.

The project shall engage as early as possible with relevant parties, ensuring that those affected are able to feed into the decision-making process when changes can still be made to mitigate impacts. Early engagement should also manage expectations appropriately and provides evidence of systematic and inclusive engagement in project design. Where required by law, a full public consultation should also be carried out in line with the relevant legislation (for example, see Scottish Land Commission's Land Rights and Responsibilities Protocol).

The project shall provide opportunities for continuous feedback as the project is implemented and maintain this for the duration of the project. To facilitate this, up-to-date contact information for the landowner and/or project developer shall be publicly available for the duration of the project. Where possible, the project shall provide transparency on any private benefits and beneficiaries, including buyers of carbon units. The project shall communicate in a way that is transparent and accessible, paying particular attention to the specific needs of marginalised and/or vulnerable groups, where these are present.

Projects shall clearly communicate whether there will be any direct community or social-economic benefits to relevant parties. These shall be clearly differentiated from indirect benefits arising from the public goods generated by the project (i.e. those that cannot be defined as community benefits). Where requests are not deemed appropriate or proportionate, they shall still be addressed within this timeframe, to ensure that any grievance raised can be responded to transparently and fairly. Should this not be sufficient and if relevant parties wish to take their concerns further, they may do so following the IUCN UK PP Grievance and Appeals Procedure. Details of objections and resolutions shall be anonymised in line with the Data Protection Act 2018 and included in the Project Design Document (larger files can be added as an appendix).

<sup>3</sup>Written with input from Scottish Land Commission, and Community Inclusion Standard NFCA <https://www.natcert.earth/community-benefits-standard/> NFCA and the Joint UK Heritage Agency Working Group on Peatland Restoration

Projects shall identify, protect and where possible enhance access to designated and undesignated historic environment features. Projects shall consider both designated and undesignated heritage assets as constraints and opportunities during project preparation. They shall take steps to safeguard the continued preservation of known heritage assets while, where possible, improving quality of and access to these assets and shall document this in the PDD. They shall have plans and contingencies in place in the event of the discovery of unexpected and significant archaeological sites. See the Peatland Code Guidance v2.1 document for more information.

### Guidance

For the purpose of the Peatland Code, relevant parties are defined as anyone who could affect, be affected by or perceive themselves to be affected by the activities or outcomes of a Peatland Code project. These may include for example freeholders, tenants, sub-tenants, local communities, mortgagees, statutory bodies, environmental agencies, local authorities, water suppliers, archaeologists, and parties to existing agreements on the land, and those with rights of access, withdrawal, management and exclusion, or those with other legal or equitable interests in the land, such as neighbouring landowners. Projects shall demonstrate evidence of the consultation process in the Project Design Document (PDD). These requirements have been designed to provide projects with basic-level (community engagement) certification to the NFCA's forthcoming Community Inclusion Standard. This certification will be helpful in working towards eventual certification to the planned British Standards Institute community inclusion standard.

Projects wishing to share benefits with local communities should use the [Scottish Land Commission's guidance](#) for a responsible approach to delivering community benefits.

## 1.5 Additionality

### Requirement

Projects shall demonstrate additionality by meeting the requirements of a series of additionality tests. Projects shall meet the requirements of Test 1 and Test 2 and complete an additionality calculator.

#### **Test 1 - Legal Compliance**

There shall be no legal requirement specifying that peatland within the project area must be restored.

#### **Test 2 - Financial Feasibility**

Projects shall have a maximum level of non-carbon income of 85% of the project's restoration and management costs over the project duration. This non-carbon income may be public grant funding and/or other private income. The remaining minimum 15% shall come from carbon finance.

### Guidance

Various methods for assessing additionality are used within voluntary and mandatory carbon standards. Additionality is assessed to ensure that a project would not have gone ahead in a 'business as usual' scenario and that any emissions reductions are 'additional'. The Peatland Code has chosen project-based additionality tests relevant to the UK situation, where levels of peatland restoration are currently low and it is expected that the value of peatland restoration for emissions reduction carbon units will encourage peatland restoration projects.



### *Test 1 – Legal Compliance*

A peatland restoration project passes the legal test when there are no laws, statutes, regulations, court orders, environmental management agreements, planning decisions or other legally binding agreements that require restoration, or the implementation of similar measures that would achieve equivalent levels of GHG emissions reductions. Statutory designations, such as SSSI status, are not regarded as legal obligations for restoration.

Extra guidance for Water Companies:

When operating their assets and undertaking their activities, water companies should consider actions under non-statutory initiatives including the England Peat Action Plan as a solution to water quality issues, and to meet the industry's net zero goals. Peatland restoration carried out by water companies can be deemed additional under the Peatland Code, where the activity would not have happened as part of meeting their general environmental and conservation duties under the Water Industry Act 1991 and other legislation regardless of whether it is on private land or on land owned by water companies.

In England, peatland restoration projects established to provide biodiversity credits under Biodiversity Net Gain, or nutrient credits under the Solent Nutrient Market or Somerset Catchment Market, are unlikely to be eligible for the Peatland Code as their legal agreements are likely to specify that peatland restoration is required.

### *Test 2 – Financial Feasibility*

The financial feasibility test aims to determine whether the project would be financially feasible without carbon finance. The assumption is that cost and revenue are decisive factors in the decision to restore. A peatland project passes the test when the project can demonstrate via financial analysis that no more than 85% of the total project costs over its duration are covered by other income than carbon finance.

The remaining minimum 15% shall come from carbon finance. Costs and revenues used within the financial analysis shall be based on current, local, prices.

Non-carbon income directly to the restoration project includes:

- ◇ Charitable donations.
- ◇ Private sources.
- ◇ Other non-government sources (e.g., lottery funds).
- ◇ Any non-carbon income.

Carbon finance includes:

- ◇ Income for which there is a carbon unit contract (either PIUs or PCUs) with a 3rd party.
- ◇ Money the landowner has invested in the project with a view to personally making statements or reporting the carbon units (insetting).
- ◇ Planned future sales of carbon units, by the landowner or another party, which are linked to predicted emission reductions rates and current prices.

Costs include:

- ◇ Site survey and preparation
- ◇ Restoration and management activities for the project duration
- ◇ Monitoring activities
- ◇ Project developer costs and contractor fees

Costs exclude:

- ◇ Validation/verification
- ◇ Other costs related to provision of other facilities (e.g., recreation and access)
- ◇ Land acquisition (purchase, lease, rent) or loss of land value
- ◇ Income foregone (e.g., previous agricultural income)

## 1.6 Avoidance of Double Counting

The registry provides an online infrastructure to track environmental units throughout their lifecycle.

### Requirement

Projects and carbon units shall only appear on one carbon registry – [The UK Land Carbon Registry](#). Projects shall declare in the Project Design Document (PDD) that the project area is not registered under another standard, this shall be cross referenced by the validation/verification body at project plan validation.

Carbon units in the registry shall have a unique serial number associated with them and provide information about the buyer to ensure that from issuance to transfer, and assignment, the serialised units' movements are entirely tracked and auditable. All projects, project documentation, carbon units, assignments and retirements shall be visible in the 'public view' of the UK Land Carbon Registry. Upon project plan or restoration validation Pending Issuance Units (PIUs) shall be listed for all expected carbon units in the project. Any PIUs sold in advance of verification shall either be transferred to the relevant buyer's account or 'assigned' to that buyer.

At each verification the relevant PIUs for that vintage are converted to verified Peatland Carbon Units (PCUs). Prior to using Peatland Carbon Units in any reports, they shall be 'retired' from the UK Land Carbon Registry.

### **Guidance**

Until sold, the landowner is the sole owner of the emissions reduction benefits of the project, unless contractually agreed differently. Guidance on the legal ownership of carbon units can be found on the Peatland Code pages of the IUCN UK PP [website](#). Emissions reduction benefit can be sold at any time over the duration of the project.

## 1.7 GHG Statements

### Requirement

Landowners and project developers shall make carbon buyers aware of the Peatland Code Guidance on GHG 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 of the GHG benefit of the project shall clearly state the timescale over which the emissions reduction will take/has taken place. Emissions reductions shall only be reported, or used, after the emissions reductions have occurred and have been verified (i.e. Peatland Carbon Units) in accordance with guidance. This is called ex-post reporting.

For further guidance see the separate [Peatland Code Guidance document](#).

## 1.8 Validation/Verification

### Requirement

All Peatland Code projects shall be independently validated and verified.

#### 1.8.1 Eligibility

The validation/verification body shall meet the eligibility criteria outlined in the Scheme document for validation and verification and as a minimum be accredited under the sectoral scope of Agriculture Forestry Other Land Use (AFOLU) to ISO/IEC 17029:2019 *Conformity assessment – General principles and requirements for verification and validation bodies* and ISO/14065:2020 *General principles and requirements for bodies validating and verifying environmental information*.

ISO14065:2020 shall be used as the governing standard for Peatland Code validation and verification delivery and VVBs shall be accredited to these ISO standards under the Peatland Code (extension of scope) within two years of becoming an approved VVB. More details can be found in the [VVB Scheme Document](#).

### 1.8.2 Project Validation/Verification

Projects shall meet the requirements set out in the Peatland Code and provide all the required documentation to the appointed VVB.

Projects shall be validated/verified against the most recent version of the Peatland Code. However, since validation is done in two steps (project plan validation and restoration validation) both steps shall be done to the same version of the Peatland Code even if there has been a version update in between, i.e., if the project plan was validated to version 2.0 restoration validation will also be to version 2.0 despite the current version being 2.1. Projects shall be verified to the most recent emission factors to determine the emissions reductions at verification.

After three consecutive verifications with the same validation/verification body projects, shall have the **fourth** verification with a different validation/verification body to ensure impartiality and accuracy.

### 1.8.3 VVB Non-Conformance

Materiality in the context of GHG projects refers to the significance of errors, omissions, or misrepresentations in GHG data and how these can impact the overall GHG assertion and the resulting opinion statement. Materiality has both qualitative and quantitative aspects. A lack of response from the project proponent regarding a misstatement or non-conformity can also affect the opinion statement.

The type of non-conformances that a VVB can raise are:

**Non-conformance** – Any errors in meeting the Peatland Code requirements (criteria) such as, but not limited to, poorly managed documentation, discrepancies in information provided but that does not affect the GHG assertion. This shall be addressed by the project proponent before an opinion statement is issued.

**Misstatement:** Any issue with the potential to affect the GHG emission reduction vs that which has been stated. For example, at verification the average percentage of condition category does not match the information reported in the Project Process Report.

## 2.0 Project Design

### 2.1 Management Plan

#### Requirement

The project shall have a restoration management plan for the duration of the project and shall be managed as per the restoration management plan for the project duration.

The restoration management plan shall include, but is not limited to:

- ◇ A statement of project objectives (including anticipated post-restoration condition category).
- ◇ A statement of the restoration and management activities to be implemented over the project duration., including identification of necessary resources and inputs.
- ◇ A map of the project area, showing as a minimum the areas of peatland to be restored.
- ◇ A chronological plan of restoration and management activities.
- ◇ A statement of environmental impact (including biodiversity).
- ◇ A statement of social impact.
- ◇ A statement of the individuals involved in the delivery of the restoration and management activities and their expertise.

The project shall confirm that legal compliance and best practice guidance were considered during the preparation of the restoration management plan.

## 2.2 Monitoring Plan

### Requirement

As a minimum, monitoring of condition category change shall take place (max 12 months) prior to each verification, by the project, and shall be conducted as per the Peatland Code Field Protocol. 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.

Projects shall notify IUCN UK PP and the validation/verification body in written form when any new risks to the peatland condition are recorded, any damage occurs, or anything that raises concern over the continued maintenance of the site in improved condition is identified. These concerns/risks found on site during the period between official inspections, and action taken to mitigate them shall be recorded. The project shall have a monitoring plan for the duration of the project that covers anything that might have an impact on the success of the restoration in the long term.

The monitoring plan shall include but is not limited to:

- ◇ A statement of the monitoring activities to be implemented over the project duration including identification of necessary resources and inputs
- ◇ A link to the risk assessment (see section 2.3) and relationship 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 surveyors on the ground, other contractors/employees of the farm or estate, project developers/agents and landowners 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.
- ◇ How site condition shall be monitored, with a general overview of the site condition identifying any areas of concern including monitoring of GHG leakage potential and including all assessment unit categories.
- ◇ At minimum the following information shall be listed GPS point, photos, name of surveyor, condition summary and any further work requirements
- ◇ The project shall be monitored as per the monitoring plan for the project duration.

### **Guidance**

Monitoring in excess of the minimum, detailed in the Peatland Code and Field Protocol, may be undertaken by the project to reflect the individual objectives of each project. For example, this could be yearly fixed-point pictures to provide evidence of progress in between verifications.

Monitoring shall include everything from the impact of livestock or deer, bare peat revegetation progress, re-profiled hags and evidence of any further erosion, dam success or any significant failures. Identify any new risks and state the mitigation planned.

## 2.3 Management of Risk

### Requirement

The project shall undertake remedial action should restoration activities not result in predicted condition category change by Year 5.

Using the Peatland Code [Risk Assessment v2.1](#), the project shall identify potential risks to the maintenance of improved condition category and associated emissions reductions over the project duration, risks to local communities, other rights holders and ecosystem services and identify and implement appropriate mitigation strategies where possible. Projects shall demonstrate that procedures are in place to ensure social and environmental risks are correctly identified, assessed and managed.

To document and mitigate project risks, project developers shall include a Risk Management Plan (RMP) in the Project Design Document (PDD) that includes the analysis of all the risks identified. It shall include mitigation strategies to reduce the identified risks to the maximum extent possible, even for risks with values less than 13.

The project shall contribute 20% of net GHG emissions reductions over the project duration to the Peatland Code Risk Buffer. The project shall inform the Peatland Code team and UK Land Carbon Registry of any change in landowner/tenant over the project duration. The project shall inform future landowners/tenants of the commitment to the Peatland Code and any carbon contracts.

*Disclaimer: Neither the IUCN UK Peatland Programme nor any of the other Governing Bodies shall be responsible for compensating or bear any liability to landowners, project developers or any other person who would ordinarily be entitled to PCUs or PIUs in the event a project suffers an unintentional reversal and there is a shortage of PCUs or PIUs in the Peatland Code Risk Buffer at any time.*

## Guidance

Peatland restoration projects carry a risk of reversibility with regards to condition category, and as such safeguards must be in place to minimise that risk, as well as to guarantee compensatory emissions reductions should reversal occur. The Peatland Code Risk Buffer is managed by the IUCN UK Peatland Programme and comprises emissions reduction contributions from each validated Peatland Code project. It can be drawn upon should unintentional reversal of post-restoration condition category occur. The failure of restoration activities to achieve condition category change will not be covered by the buffer. Further guidance on the risk assessment and risk buffer can be found in the separate Peatland Code Guidance v2.1 document.

### 2.3.1 No-Net Harm

Peatland Code Projects shall not negatively impact the natural environment or communities.

#### Requirement

Projects shall adhere to the “**No Net Harm**” principle, by ensuring safeguards are in place so that any environmental impacts on the project area are likely to be positive and result in wider benefits. The details shall be documented in the PDD in the relevant section. Should any risk be identified, that could negatively impact the environment or local community, it shall be logged as part of the risk assessment above.

## 2.4 Commitment of Landowners and Project Developers

#### Requirement

The controlling party/parties of the land (or where land is tenanted, both the landowner and the tenant) shall commit to:

- ◇ Conform to this standard.
- ◇ Manage the land as per the management plan for the project duration
- ◇ Comply with the law.
- ◇ Carry out a consultation pre-restoration
- ◇ Restore the peatland should the peatland suffer from fire, pests, or disease.
- ◇ Inform future landowner(s), and where land is tenanted, future tenant(s), of the commitment to the Peatland Code and any carbon contracts.
- ◇ Monitor and maintain verification for the project duration as per Peatland Code guidance (unless the third-party project developer agrees to take this on).
- ◇ Report to the IUCN UK PP when any new risks to the peatland condition occur, any damage occurs or anything that raises concern over the continued maintenance of the site in improved condition is found on site.
- ◇ Make true and accurate carbon statements about the project which conform with Peatland Code guidance.
- ◇ Abide by the Peatland Code logo rules of use.



- ◇ Ensure the project, any PIU listings, sales to carbon buyers, and retirement for use of verified Peatland Carbon Units are accurately represented and up to date in the UK Land Carbon Registry.
- ◇ Make true and accurate carbon statements about the project which conform with Peatland Code guidance

The project developer shall commit to:

- ◇ Conform to this standard.
- ◇ Comply with the law.
- ◇ Monitor and maintain verification for the project duration as per Peatland Code guidance (unless the landowner has agreed to take this on).
- ◇ Ensure the project, any PIU listings, sales to carbon buyers, and retirement for use of verified Peatland Carbon Units is accurately represented and up to date in the UK Land Carbon Registry.
- ◇ Make true and accurate carbon statements about the project which comply with guidance.
- ◇ Make carbon buyers aware of the Peatland Code guidance on carbon claims and ensure this is included in contracts with buyers.
- ◇ Abide by the Peatland Code logo rules of use and make carbon buyers and landowners aware of the Peatland Code logo rules of use.

## 2.5 Sustainable Development Goals

### Requirement:

The project shall demonstrate how the restoration activities, or additional activities implemented, contribute to sustainable development, as defined by, and tracked against, the United Nations Sustainable Development Goals (SDGs). The project shall demonstrate that it contributes to at least three SDGs by completing section 4, of the Project Design Document (PDD).

### **Guidance**

The 2030 Agenda for Sustainable Development was adopted by all United Nations Member States in 2015 and within this a set of **17 Sustainable Development Goals** (SDGs) were established. The aim of these goals is to address a range of global challenges, such as ending poverty and improving gender equality, health, education and economic growth while protecting our ecosystems and tackling climate change. By evidencing impact towards these SDGs peatland projects can demonstrate the associated environmental and social benefits of peatland restoration.

## 3. Greenhouse Gas (GHG) Emissions Reduction

### 3.1 Establishment of Baseline Emissions

#### Requirement:

Projects shall identify the pre-restoration condition categories present within the project site and the area of each using the Peatland Code Field Protocol. Fen projects shall measure the mean annual water table depth using the Peatland Code Field Protocol. Projects shall establish a GHG emissions baseline (tCO<sub>2</sub>e), against which active GHG emissions reduction resulting from the project shall be calculated, using the relevant bog or fen Peatland Code Emissions Calculator. The GHG emissions baseline shall be derived from a continuation of the pre-restoration peatland condition category in the absence of the project.

GHG emissions used in the calculation of emissions factors include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), dissolved organic carbon (DOC) and particulate organic carbon (POC). Emissions factors are stated in CO<sub>2</sub> equivalents, which is a metric measure used to make greenhouse gases comparable, by taking into account their different Global Warming Potentials (GWP) over 100 years. This is done by converting amounts of other greenhouse gases to the equivalent amount of carbon dioxide with the same global warming potential.

**Guidance**

The Peatland Code has adopted a conservative approach to the construction of the baseline scenario (projection of the emissions change on the site in the absence of the project). By deriving the baseline from a continuation of the pre-restoration peatland condition category any deterioration in the condition of the peatland that may have occurred over time, and any associated change in emissions cannot be accounted for. Additionally, each project is required to measure its own baseline directly in the field, which minimises uncertainty.

3.2 GHG Leakage

Requirement

The project shall declare any intention to change the use or management of land elsewhere because of the peatland restoration activities. If there is an intention for change, the project shall carry out an assessment to determine whether the change will result in significant GHG emissions (≥5% of the emissions reduction over the duration of the project).

If significant GHG emissions will occur, this shall be quantified (in tCO<sub>2</sub>e/yr) for the duration of the project using the information in the Peatland Code Guidance document and subtracted from the projected emissions reductions claimed, using the [Emissions Calculator](#).

3.3 Net GHG Emissions Reduction

Requirement

The project shall calculate the net change in GHG emissions (tCO<sub>2</sub>e) using the Peatland Code Emissions Calculator.

Gross emissions reduction is the change in emissions over the project duration, relative to the baseline, as a direct result of the project. Net emissions reduction of the project is calculated by subtracting the total carbon cost of restoration from the gross emissions reduction (if this cannot be calculated, a 5% carbon cost buffer is used), applying a 5% conservative buffer, and adjusting for any leakage (see diagram below). To determine the claimable net emissions reduction, the contribution to the Peatland Code Risk Buffer, which is managed by the IUCN UK Peatland Programme, is also removed.

$$\begin{array}{r} \text{Gross emissions} \\ \text{reduction} \end{array} - \begin{array}{l} \text{Carbon Cost of restoration} \\ \text{or} \\ \text{Carbon Cost Buffer 5\%} \end{array} - \begin{array}{l} \text{5\% Conservative} \\ \text{Buffer} \end{array} - \begin{array}{l} \text{Potential} \\ \text{leakage} \end{array} = \begin{array}{l} \text{Net emissions} \\ \text{reduction} \end{array}$$

Net GHG emissions reduction shall be divided in the Peatland Code Emissions Calculator into the contribution to the Peatland Code Risk Buffer and the remaining claimable units. The project shall state each contribution per vintage for the duration of the project. The most recent emission factors shall be used to determine the emissions reduction at verification.

**Guidance**

It is important to remember that claimable emissions reduction over the project duration is a predicted figure and not a guarantee. Every effort has, however, been made to ensure the predicted figure is conservative and achievable. Monitoring will facilitate the comparison of actual emissions reduction to predicted emissions reduction.

If at verification the independent verifier states that the project has moved to the next condition category, with a lower emission factor than the original assumed 1 step change in condition category, the additional emissions reduction can be claimed (minus the buffers) as PCUs.

## Glossary

For the purpose of the Peatland Code the following terms and definitions apply:

**Accreditation** - An attestation related to a validation or verification body conveying formal demonstration of a validation/verification body's ability to carry out validation and verification. Accreditation of a validation/verification body is carried out by the United Kingdom Accreditation Service (UKAS).

**Assignment:** Assignment is a way of publicly demonstrating the sale of a unit without requiring a buyer to have an account on the UK Land Carbon Registry. All assignments get automatically retired at verification.

**Actively Eroding** - A condition category of peatland. Peatland is considered to be 'actively eroding' if extensive bare peat is present either within a peat pan, a hagg/gully system or at a former peat cutting site.

**Additionality** - Criterion stipulating that project-based Greenhouse Gas (GHG) reductions shall only be quantified if the project activity "would not have happened anyway". The Peatland Code utilises legal, financial and barrier tests to determine additionality.

**Baseline Emissions** - Greenhouse Gas (GHG) emissions reductions from a project activity are quantified relative to baseline emissions for the project duration. Baseline GHG emissions are derived from the baseline scenario. For the purposes of the Peatland Code the baseline scenario is a continuation of current peatland condition category and hence a continuation of current GHG emissions ('business as usual').

**Blanket Bog** - A type of peatland waterlogged only by direct rainfall, where deep deposits of peat blanket the landscape.

**Carbon Dioxide equivalents (CO<sub>2</sub>e)** - The universal unit of measurement used to indicate the global warming potential of greenhouse gases. It is used to evaluate the impacts of releasing (or avoiding the release of) different greenhouse gases.

**Condition Category** - Categories of peatland condition which correlate to an Emission Factor assigned using identified indicators see Peatland Code Field Protocol for more information.

**Carbon Finance** - Payments for GHG benefit over and above that which would otherwise have occurred in the 'business as usual' scenario

**Double Counting** - Double counting occurs when the same tonne of carbon dioxide equivalents is sold more than once.

**Drained** - A condition category of peatland. Peatland is considered 'drained' if it is within 30 m of an artificial drain or a natural drain formed by the presence of a hagg and gully.

**Ecosystem Services** - The diverse range of services that we derive from the natural environment. Four categories of ecosystem service have been identified: Provisioning, Regulating, Cultural, and Supporting.

**Fen** - Fens occur in waterlogged situations where they receive nutrients from the surrounding catchment (typically groundwater) as well as from rainfall. The catchment, hydrological situation and hydrological characteristics are fundamental influences upon fen vegetation types.

**Greenhouse Gas (GHG)** - A collective term for gases which are causing the warming of the Earth's atmosphere that is leading to climate change. The Kyoto Protocol recognises 6 said gases: carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons and sulphur hexafluoride.

**Greenhouse Gas (GHG) Assertion** - Factual and objective declaration regarding GHG benefit made by the project by submitting a project plan for evaluation against the Peatland Code.

**Greenhouse Gas (GHG) Reporting** - Reporting on the GHG emissions for which a party is responsible. GHG reporting can be either mandatory or voluntary.

**Greenhouse Gas (GHG) Statement** - A statement of the GHG benefit a project will have or has had to date. It can be restated by more than one party with an interest in a project.

**Greenhouse Gas (GHG) Programme** - Voluntary or mandatory international, national or sub-national system or scheme that registers, accounts and manages GHG emissions, removals, emissions reductions or removal enhancements. The Peatland Code is an example of a voluntary national GHG programme.

**Leakage** - GHG emissions occurring outside the project boundary as a result of the project (e.g. displacement of agricultural activities might result in peatland degradation or intensification of use of non-degraded peatlands elsewhere).

**Level of Assurance** - The degree of assurance the intended user requires in a validation or verification. There are two levels of assurance that can be provided by a validation/verification: reasonable and limited. Absolute assurance cannot be provided. Level of assurance provided is expressed within the verification statement.

**Management Activities** - All activities that ensure the peatland condition category change as a result of restoration activities is maintained or surpassed for the project duration. Examples of management activities include infrastructure maintenance, grazing management and burning management. Management activities take place over the project duration.

**Peatland** - Areas of land with a naturally accumulated layer of peat, formed from carbon-rich dead and decaying plant material under waterlogged conditions.

**Peatland Code Risk Buffer** - A pool of 'unclaimed units' to cover unforeseeable losses that may occur from the project over time as a result of restoration reversal. The risk buffer is owned by the IUCN UK PP.

**Project** - The sum of activities that alter the conditions identified in the baseline scenario for GHG benefit, taking place on land under sole ownership.

**Project 'Start Date'** - The date upon which restoration activities are complete. The GHG benefit is quantified relative to the baseline from this date for the project duration.

**Project Area** - Total area within which restoration activities will take place. Not exclusive to claimable condition category area.

**Project Duration** - The time over which the GHG benefit of the project will be claimed. Project duration is measured from the project 'Start Date'.

**Permanence of Emissions** - The issue of ensuring that emissions reductions are permanent, and not reversed at a future point in time. Peatland projects do carry a risk of restoration reversal, but the emissions reductions to the point of reversal remain permanent.

**Raised Bog** - A type of peatland waterlogged only by direct rainfall, where peat accumulates above the surrounding landscape.

**Reasonable Level of Assurance** - Achieved when the GHG assertion is concluded to be materially correct and a fair representation of the GHG data and information (which has been prepared in accordance with the relevant GHG programme requirements).

**Restoration** - Achieved by movement of peatland condition to a category with a lower associated Emission Factor.

**Restoration Activities** - All one-off activities that result in a change from one condition category to another

with a lower associated condition category. Examples of restoration activities include revegetation of actively eroding peatland and rewetting of drained peatland. Restoration activities take place before the project 'Start Date'.

**Retirement:** When PCUs are used by a corporate to make a claim in their GHG report to offset/inset their emissions, units are retired. This means they cannot be transferred or resold

**Revegetation** - Activity that results in the restoration of extensive bare peat to vegetated peat. Numerous methods exist to achieve re-vegetation.

**Rewetting** - Activity that results in the rewetting of drained peatland. Numerous methods exist to achieve rewetting.

**Trading Party:** landowners, project developers, brokers, carbon buyers and any other person involved in buying or selling PCUs and/or PIUs.

**Transfer:** The transfer of PIU/PCU's when a sale has been made from the sellers' UK Land Carbon registry account to the buyers' account.

**UK Land Carbon Registry** - The official record of Peatland Code projects, their validation/verification status, any validated/verified units and the owners of each unit.

**Validation/Verification Body** - Independent body appointed to carry out validation and verification of a GHG programme.

**Validation** - The systematic, independent, and documented process for the evaluation of a GHG assertion within a project plan to determine if it conforms to the agreed requirements and if its implementation can be expected to result in the proposed GHG benefit. Undertaken by a validation/verification body.

**Validation Opinion** - Formal written declaration attesting to the intended user that implementation of the planned GHG project will take place in the given time frame.

**Verification** - The systematic, independent, and documented process for the ongoing evaluation of a project and its GHG assertion against the agreed requirements. Undertaken by a validation/verification body.

**Verification Opinion** - Formal written declaration to the intended user that provides assurance that the responsible party's GHG assertion is stated within the defined level of assurance and materiality in accordance with the applicable verification criteria.

**Vintage** - The time period in which the associated emissions reduction has occurred. Typically, this is annually, although Peatland Code projects are verified in five to ten-year blocks and each time period is known as a vintage.