



**Peatland Programme**

# PEATLAND CODE

## **Draft Verification Methodology for the Peatland Code**

**Version 1.0**

April 2026

## PEATLAND CODE draft verification methodology April 2026

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## 1. Introduction

Unfortunately, the current verification methodology under the Peatland Code has been deemed unworkable. Therefore, a new methodology had to be written. This draft verification methodology was created by a working group consisting of 2 Validation and Verification Bodies (VVBs), 4 PC project developers, 2 members of public organisations, 2 scientists and the Peatland Code team. It is the working group's opinion that a bigger overhaul of the verification methodology, as well as the current condition categories is needed. However, due to the need to have a workable verification methodology quickly, a middle house was agreed which has resulted in this draft. A bigger overhaul is planned to start later in 2026.

This methodology is mainly focusing on bogs, but the final methodology will have fens included as well. Any thoughts on how the methodology will work for fens are welcome.

## 2. Pilot period

To support the smooth introduction of the Verification Methodology and ensure it works across a range of project types, the methodology will be piloted by the projects due for verification during the pilot period, before full adoption. The purpose of the pilot is to enable practical testing, structured feedback and tweaking of the current guidance before a final version is published.

## 3. Duration and Scope

Registration for the pilot will be open for **6 months** between April and September 2026. Tweaks to the methodology can be made during this period for anything that is unclear or unworkable. Further, all project developers (regardless if they have projects going through the pilot) and VVBs will be invited to provide structured feedback during the pilot on:

- The usability of each step of the methodology;
- The practicality and workload associated with desk-based analysis, mapping, survey areas, field surveys, and reporting;
- Any clarification/modification required;
- Points where guidance was insufficient

At the end of the pilot:

1. All feedback will be collated and reviewed in full and a revised methodology which will be presented to the Technical Advisory Board (TAB) for advice to the Executive Board (EB).
2. The EB will then decide to either approve or reject it. If approved by the EB a public consultation will be carried out on the draft methodology and proposed improvements, most likely during the consultation for version 3 of the Peatland Code.
3. Once all the feedback has been received, collated it will go to the EB as part of full Peatland Code version update

## 4. Verification Methodology Draft

### 4.1 Non-Conformance

The VVB will have a process to issue projects with non-conformances and manage any non-conformances raised during a PC assessment. Each non-conformance shall be documented with precise location (grid reference), description, extent and classification.

Non-conformance: A non-conformance is any instance where the project does not meet the requirements of the Peatland Code. This includes, but is not limited to:

- Inaccurate, incomplete, or missing documentation
- Discrepancies in information provided (e.g. mapping, peat depth data)
- Issues that do not materially affect the GHG assertion (e.g. those affecting less than 5% of claimable units)

A forward-facing corrective action may be issued only for non-material non-conformities that do not impact the validation/verified outcomes for the current vintage, allowing the project to proceed to verification.

### 4.2 Materiality

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 (see non-conformance section) can also affect the opinion statement

More details can be found in the [VVB Scheme Document V2](#).

## 5. Overview

Verification will take place as a minimum at year 5 after the project “Start date” and thereafter every 10 years. An additional verification is required at the end of the project if the time since last verification is less than 10 years. For example, for a 30-year project minimal verifications would take place at years 5, 15, 25, with an additional verification at year 30. The verification dates are linked to the vintage end dates on the Pending Issuance Units (PIUs) listed at validation. If projects want more frequent verifications, the vintages will have to be set up accordingly when setting up PIUs at validation. Verification is conducted by an approved third-party independent verification body who will evaluate the claim made by the project developer about the condition category of the peatland against the baseline condition category presented at Project Plan Validation.

The evaluation of the third-party verifier will consist of a check of the submitted documents (see paragraph 6-9 below on the requirements for these) and a site visit to determine if the requirements of the Peatland Code have been met. During a site visit the independent verifier will walk over the site and carry out a risk-based assessment of

any evidence of on-site non-conformances and areas at risk of reversal in condition category, e.g., evidence of increased deer numbers, erosion evidence, dams failing. The verifier shall also check that they agree with the submitted map of the site that details the condition categories for each assessment unit and shall raise a non-conformance if they find a discrepancy. The verified areas of assessment units that have changed to the expected condition category shall be used to convert PIUs to PCUs (including the ones in the risk buffer).

Details on the VVB process for verification is outlined in the [VVB Scheme Document v2.](#)

### 6. Verification process for project developers

Projects may begin the verification process 6 months before the end date of the vintage that is due for verification and have 12 months after the end date of the vintage before the verification is due. After surveying and submitting your documents, allow 6-12 months (depending on when a site visit can take place) from when you sign a contract with the verifier to converting your carbon units on the [UK Land Carbon Registry](#). The project shall submit the following documents to the approved third-party independent verification body contact information can be found on the [Peatland Code website](#):

- Project Progress Report
- Updated Risk Assessment
- Fixed-point photographs (see Field Protocol and below for guidance)
- Aerial imagery (see Field Protocol and below for guidance), this shall be stored on a remote server and made accessible for the VVB and Peatland Code team. The VVBs and Peatland Code team do not have the computer storage to receive these files.
- Updated AU map (see below for guidance)
- Updated draft emission calculator using the latest version template, but with the same percentage contribution to the risk buffer as during validation if preferred (unless the risk buffer is depleted, and projects are required to add more units to the risk buffer).
- Landowner, tenant and agent contact details if any parties have changed since last assessment
- For fens: water table data, including annual average effective water table (see Field Protocol for guidance)
- For fens: annual emissions calculators using the annual average effective water table for the duration of the vintage

If no non-conformances/misstatements are raised or if all non-conformances are suitably rectified within the required timeframe, as determined by the verification body, a verification statement shall be issued and the qualifying PIUs for that particular vintage will be converted to verified Peatland Code Units (PCUs). For example, at year 5, PIUs for years 0-5 will be verified to PCUs. If 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, more carbon units can be issued at that point. The project will be listed on the UK Land Carbon Registry as verified. Verification opinions never expire.

To download project templates please visit [Peatland Code Key Documentation & Support | IUCN UK Peatland Programme](#).

### 7. Aerial imagery

The initial step in the verification process for PDs shall be mainly a desk-based exercise. This is to predominantly highlight positive or negative signs of condition category change at a site wide scale. The result of this desk-based exercise is the creation of a map with a route to walk over the site for site survey on the ground.

The following steps shall be followed:

1. Contact an approved validation and verification body to discuss timelines and planning of site visit by the verifier.
2. Collect aerial imagery
3. Review aerial imagery
  - a. Identify any areas that potentially have not moved to the expected condition category
  - b. Identify any areas deemed as high risk
4. Determine additional areas to visit on the map
5. Draft map for site survey

#### 7.1 Contact VVB

Project developer shall ensure sufficient lead time to the verification period, by contacting their selected VVB to carry out their verification and scheduling a site visit by the verifier.

#### 7.2 Collect aerial imagery

Aerial imagery shall be collected in the timeframe of 6 months before and 6 months after the end date of the to verify vintage. Late summer, early autumn is the best time to collect this, since there is more variability between vegetation species. High resolution aerial imagery is advised, with a pixel size of 5cm or less. A lower resolution is allowed, but this will increase the percentage of ground survey required (see Table 1 below).

Especially when using an external aerial pilot, ensure sufficient lead time to verification period, allowing for contracts to be set-up (if using an external company) and flight dates planned. Availability and weather may lead to several months lead-in, especially during busy times.

#### 7.3 Review aerial imagery

Overlay the validated assessment units over the aerial imagery and then add a 200m polygon grid. Visually inspect each square to determine the condition category and

areas at risk at ~1:750 scale. Zooming in and out may help adjust for resolution of data. Tick off squares as they are visually surveyed to ensure all are complete.

*7.3a. Identify any areas that potentially have not moved to the expected condition category*

Using aerial imagery, review the condition categories assigned to each assessment unit. Identify and map any areas that do not appear to have progressed to the expected condition category following restoration (see Figure 1 and 2 **Error! Reference source not found.**). A proportion of these areas shall be checked during subsequent field visits by the project developer.

A condition category is not moving to the next condition category if the following features are still present:

- In actively eroding:
  - Any area of bare peat that is bigger than 1x1m
- In Drained: Hagg/gully:
  - Features that are missed at restoration
  - For dammed gullies: less than 50% of the area between dams is filled with water and/or vegetation
  - For reprofiled hags/gullies: still a vertical feature with or without bare peat visible.
- In Drained: Artificial:
  - Features that are missed at restoration
  - For dammed drains: less than 50% of the area between dams is filled with water and/or vegetation
  - For zipped drains: the drain is still visible.
- In Modified:
  - No or very little sphagnum present
  - *Caluna vulgaris* or other non-bog vegetation (e.g., purple moor grass extensive
  - Bare peat more than 1x1m patches

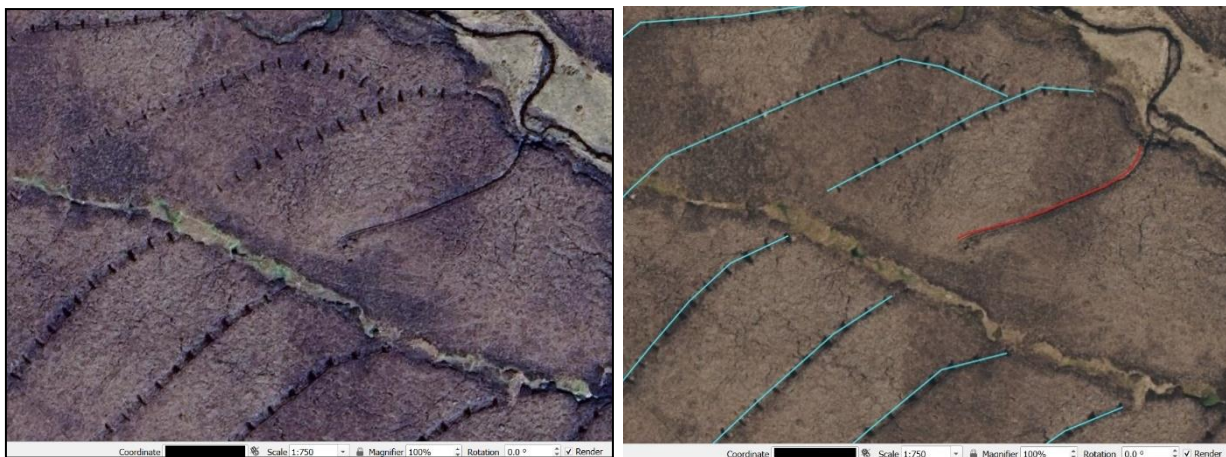


Figure 1 Potential artificial drain that is not moving to rewetted modified bog (left); mapped in red, as potential not moved to next condition category (right) NOTE: these figures will be updated to higher resolution aerial images soon.

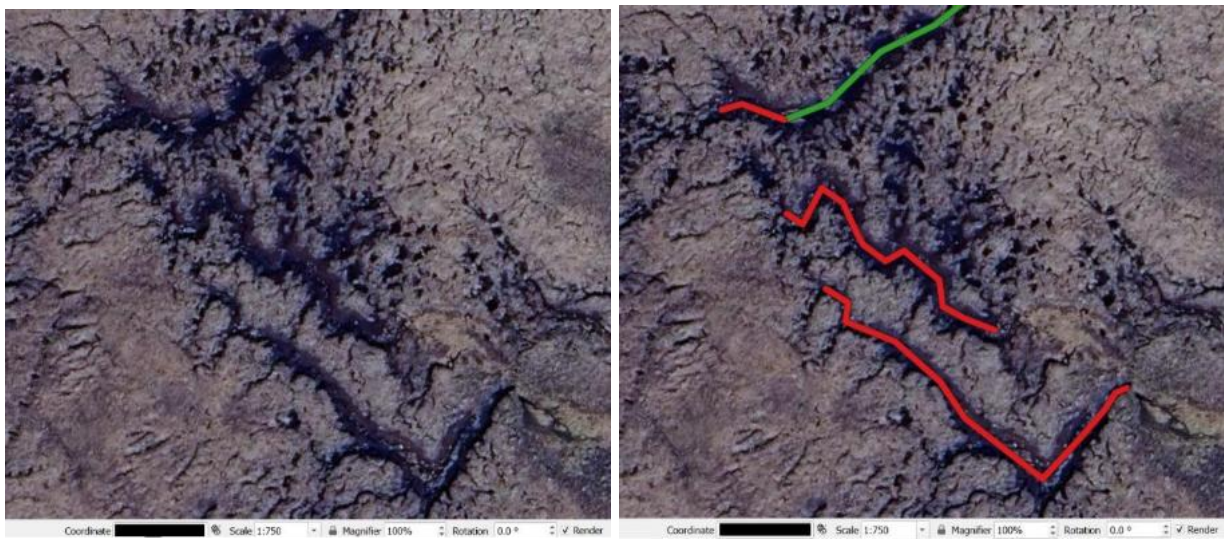


Figure 2 Potential hagg/gully that is not moving to revegetated (left); mapped (as per original submission) in red as potential not moved to next condition category and green the area that is most likely moving to the next condition category change (right). NOTE: these figures will be updated to higher resolution aerial images soon.

### 7.3b. Identify any areas deemed as high risk

A risk area is an area identified through a desk-based assessment, where a contributing factor may lead to a higher likelihood that the condition change might not occur (e.g. noted steep ground, deer traffic, burning, historic poor workmanship etc.). A risk area is not necessarily an area that has not moved to the expected condition category, as this relates to the specific degradation feature.

Risk can be due to:

- Physical: location altitude, topography,
- Chemical: low surface pH (pH <3.6), unfavourable redox potential with depth (Eh >300)

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- Ecological: deer grazing or other/neighbouring activities on the land such as livestock pressure, burning, access tracking, woodland
- Technique related: type of restoration, material used, poor workmanship, dam failures

Risk areas for the project should be identified through the following

- Reviewing aerial imagery for pre and post restoration if available, or at previous verification
- Risk Assessment submitted at Validation
- Any known issues recorded as part of the ongoing monitoring and management, or applicable grant process (e.g. final report)
- Previous risk areas identified at earlier verifications
- Any risk of reversal events

Add all identified risk areas to your map with areas where the condition category is not moving to the next condition.

### **7.4 Determine additional areas to visit on the map**

On top of a proportion of the areas identified of being at risk and areas that potentially have not moved to the expected condition category, randomly allocated areas of the site shall also be walked and surveyed. These areas shall be identified through a stratified random selection of survey points (see field protocol) within all assessment units on the 100x100m grid. QGIS could be used for this which has a function that allows random points to be plotted within polygons/ along lines in the Research Tools. These survey points are only used to determine the walking route along which site survey shall happen, the survey points themselves do not signify anything else.

The percentage of survey points, of risk areas and of areas that potentially have not moved to the expected condition category that shall be added to the walking route is determined by the level of confidence in the aerial imagery, see Table 1.

Table 1 Required percentage of risk areas, of areas that potentially have not moved to the expected condition category and of additional areas to visit, to determine walking route.

Confidence level	Criteria	Required percentages to determine walking route
<b>Very high</b>	Project specific Aerial imagery with pixel size of 5cm or less	20%
<b>High</b>	Project specific Aerial imagery with pixel size of 12.5cm or less	40%
	OR	
	Artificial drainage only in project plus “Moderate” criteria	40%
<b>Moderate</b>	Aerial imagery with pixel size of 15cm or less	60%
<b>Low</b>	Aerial imagery with pixel size of 20cm or less	80%

### 7.5 Site Survey Map for Project Developer Field Visit

Before the project developer undertakes the field visit a walking route shall be mapped on a survey map. This survey map shall be drawn up based on the validated baseline site map. The following elements shall be included in the survey map:

- a) Randomly selected proportion, following Table 1, of the number of areas that potentially have not moved to the expected condition category identified under step 7a (Labelled and distinct colour to risk areas).
- b) Randomly selected proportion, following Table 1, of the number of identified known risk areas as identified under step 7.3b (Labelled and distinct colour different to areas that potentially have not moved to the expected condition category).
- c) All isolated areas (smaller than 5m x5m) that were included in the assessment units at validation.
- d) Fixed point photograph locations as set at validation stage and any added at an earlier verification.
- e) Proportion, following Table 1, of additional areas to visit as identified under step 7.4.
- f) All Assessment Units as originally mapped during validation should be covered through the above, but if not, extra areas shall be added.

The walking route shall go through all the identified areas above.

### 8. Field survey

A site survey shall be undertaken by the project in the timeframe of 6 months before and 7 months after the end date of the to verify vintage. The site survey shall be a walkover over the site following the route as mapped on the survey map ([section 7.5](#)). The walkover shall endeavour to confirm the condition category of identified areas under step [7.5](#). On top of if this any other areas that the surveyor comes across that

potentially have not moved to the expected condition category as the site is walked shall be identified. This requires stopping at each identified area under step [7.5](#) and recording the condition category present and checking for areas that have not moved to the expected condition category as defined under [7.3a](#) and the condition category transition table below (Table 2). In instances where the full route cannot be walked due to site conditions making it unsafe, this shall be documented and evidenced, and an alternative safe route shall be established.

All visited areas (as defined under [7.5](#), except the additional areas), including areas that have not moved to the next condition identified during the walkover, shall have a photo taken showing the context of the feature (e.g. gully without sensible interruption, in relation to original degradation feature; photo showing distance between interruptions). Photos shall be taken in a fixed-point style manner, e.g. with notable static features present. The length of the feature that does not move to the next condition category shall be measured in a linear feature, and the area of bare peat shall be estimated by measuring the length and width of the area.

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Table 2 Condition category transition table:

Baseline Condition Category	Baseline Condition Category description	Post restoration condition category (initial step change)	Post restoration condition category description	Does not move to the next condition category
Actively Eroding: Hagg/Gully	A linear feature of bare peat that is actively eroding within a hagg/gully system (e.g., steep bare peat cliffs and/or bare gully bottoms) that needs reprofiling	Revegetated	Any former bare peat is no longer extensive nor continuous	Any area of bare peat that is bigger than 1x1m
	OR			
	Artificial drains which have opened up to the point that they are bare and actively eroding, and require reprofiling			
	OR			
Actively Eroding: Flat Bare	Peat banks from peat cutting that have active, ongoing erosion, not just bare peat.			
	Bare peat (e.g., bare peat pan or former peat extraction site) that is actively eroding and requires intervention to revegetate (e.g., re-seeding, geotextiles, etc.)			
Drained: Artificial	A) Within 30 m of an active artificial drain (grip)	Rewetted Modified Bog	A) Within 30 m of a rewetted artificial drain (active flow interrupted by restoration activities)	<ul style="list-style-type: none"> <li>O Features that are missed at restoration</li> <li>O For dammed drains: less than 50% of the area between dams is filled with water and/or vegetation</li> <li>O For zipped drains: the drain is still visible.</li> </ul>

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Drained: Hagg/Gully	B) Within 30 m of an actively eroding hagg/gully drainage system		B) Within 30 m of a rewetted hagg/gully (active flow interrupted by restoration activities)	<ul style="list-style-type: none"> <li>o Features that are missed at restoration</li> <li>o For dammed gullies: less than 50% of the area between dams is filled with water and/or vegetation</li> <li>o For reprofiled hags/gullies: still a vertical feature with or without bare peat visible.</li> </ul>
	OR			
	B) Within 30 m of a vegetated hagg/gully drainage system		B) Within 30 m of a rewetted hagg/gully active flow interrupted by restoration activities)	<ul style="list-style-type: none"> <li>o Features that are missed at restoration</li> <li>o For dammed gullies: less than 50% of the area between dams is filled with water and/or vegetation</li> <li>o For reprofiled hags/gullies: still a vertical feature with or without bare peat visible.</li> </ul>
Modified	<p>C) Evidence present that it is still a degraded system, with exhibiting features that show sub-optimal condition, such as:</p> <ul style="list-style-type: none"> <li>• No/little Sphagnum</li> <li>• Calluna vulgaris or other non-bog vegetation (e.g., purple moor grass (Molinia)) extensive</li> <li>• Small discrete patches of bare peat frequent (micro-erosion)</li> </ul>		<p>C) Sphagnum in parts</p> <ul style="list-style-type: none"> <li>• Scattered patches of Calluna vulgaris</li> <li>• Extent of bare peat limited to small patches</li> </ul>	<ul style="list-style-type: none"> <li>O No or very little sphagnum present</li> <li>O Caluna vulgaris or other non-bog vegetation (e.g., purple moor grass extensive</li> <li>O Bare peat more than 1x1m patches</li> </ul>

\*Options for initial step change within Rewetted modified bog now linked to pre-restoration category types (A, B & C), hence not allowing overlapping options on assessment of initial step-change.

## 9. Progress report and map

A project progress report (template available [here](#)) and updated Assessment Unit map shall be produced by the PD bringing together the initial desk-based exercise and onsite survey.

### 9.1 Progress report

The following shall be included:

- Details on desk-based assessment
  - Post-restoration aerial imagery provenance(s)
- Survey walking map as created under section [7.5](#)
- Details on site visit
  - Date undertaken
  - General conditions (summer drought, winter ice etc.)
- For each visited potential area that has not moved to the expected condition category
  - Pictures from validation, previous verifications and/or general monitoring survey (if available)
  - Fixed-point photograph showing the context of the feature.
  - Reasoning for potentially not moving to the expected condition category
  - Survey outcome: area moved to the expected condition category or not
- For each visited risk location
  - Fixed-point photograph showing the context of the feature.
  - Commentary
- For each Fixed-point photograph location as set at validation stage and any added at an earlier verification
  - New Fixed-point photograph showing the context of the feature.
- For isolated areas
  - Fixed-point photograph showing the context of the feature.
- The areas for each assessment unit that have moved to the expected condition category
  - State which software (QGIS, ArcGIS, LandApp etc.) has been used to calculate the assessment unit areas
  - Round the areas down to the nearest 2 decimal spaces.

## 9.2 Updated Assessment unit map

An updated Assessment Unit map shall be created and submitted. This map shall include:

- Areas that have moved to the next condition category, use distinct colours for each category
- Areas that have not moved to the next condition category, including the buffer areas where needed (see below for guidance). Use distinct colours per category as above but add a hatching to distinguish from areas that have moved category.
- Risk locations
- Overlay of walked route from site visit
- Areas deemed unsafe to access and the deviated route

### *9.2.1 Mapping areas that have not moved to the expected condition category on the Assessment Unit map*

Areas that have not moved to the expected condition category shall be mapped separately on the Assessment Unit map using the guidance below. See section [7.3a](#) for information on when an area does not move to the next condition category.

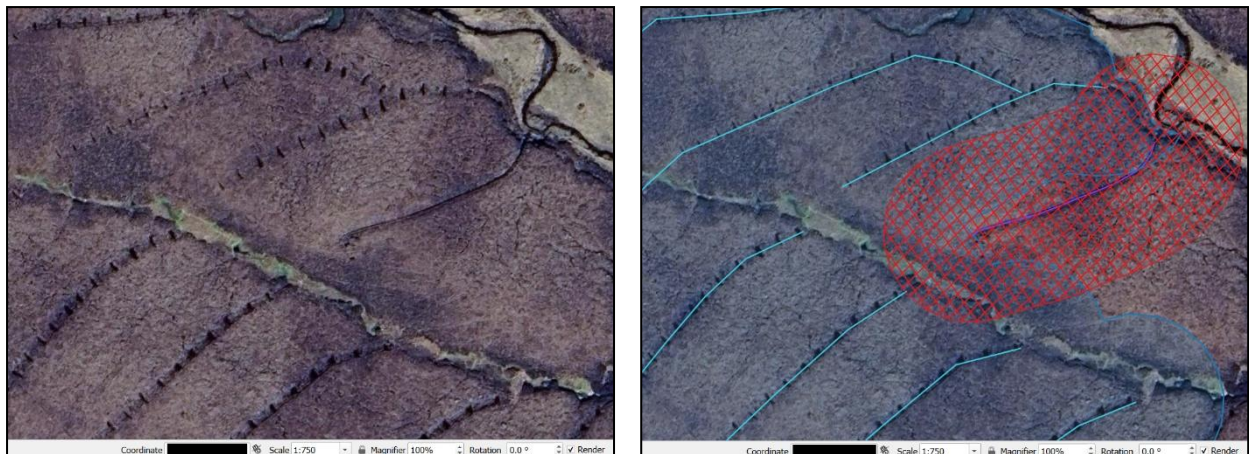
#### Actively eroding

Where worked features have not moved to the Revegetated condition category within the validated degradation feature the area shall be identified as whole or part of the original validated feature. The area that is not moving to the Revegetated condition category does not need to be buffered. The associated PIUs will be marked as non-delivered. For any subsequent verifications the area could move to the Revegetated condition category, with or without additional work.

#### Drained: Hagg/gully and Artificial

Where worked features and their associated buffers have not moved to the Rewetted modified bog condition category within the validated degradation feature these shall be identified as whole or part the original validated feature.

The extent of the feature and their associated buffers (30m either side of the feature) determined not to move to Rewetted modified bog, either part or whole, shall be marked as non-delivered (Figure 3). For any subsequent verifications the area could move to the Rewetted modified bog condition category with additional remedial work.



*Figure 3: Artificial drain that is not moving to rewetted modified bog (left); Artificial drain and associated buffer to be marked as non-delivered in red (right) NOTE: these figures will be updated to higher resolution aerial images soon.*

### 9.3 Updated draft emission calculator

An updated draft emissions calculator using the latest emission factors shall be filled in using the correct template for the verification. The same percentage contribution to the risk buffer as during validation can be used if preferred (unless the risk buffer is depleted, and projects are required to add more units to the risk buffer. For the current verification vintage, the area of each Assessment Unit that has moved to the expected condition category shall be entered in Table 2.1 of the Bog Emissions Calculator for verification. Where an area of the Assessment Unit has not yet moved to the expected condition category, but the project anticipates it to do so at a later verification (either through remedial works or natural processes), the area shall be included in Table 2.2. All other areas shall be excluded from the total areas reported in both Tables 2.1 and 2.2.