

Peatland Code Training Day 1 - 9th November 2022

Andrew Stimson

North Pennines AONB Partnership

Day 1 Objectives

Ability to..

1. Determine project eligibility
2. Calculate emission reductions from mapping and survey data
3. Assess project finance / additionality
4. Summarise all aspects of the project through the project design document (PDD)

Day 2 Objectives

Ability to..

1. Set up IHS Markit account & register projects
2. Understand the validation / verification process
3. Promote the code to stakeholders and answer queries
4. Understand carbon units and sales.

Day 1 - Outline

1. Eligibility 10.15 – 11.00 (45 mins)

Break 1 11.00-11.15

2. Emissions Calculations 11.15 – 12.30 (1h 15m)

Lunch 12.30-13.15

3. Finance and additionality 13.15-14.15 (1hr)

Break 2 14.15-14.30

4. PDD and other documents 14.30-15.30 (1hr)

5. Summary and Q+A 15.30 – 16.00 (30 mins)

1. Eligibility

- Peatland type must be blanket or raised bog
- Peat soils must be greater than 50cm in depth (For 75% of survey points)
- Peatland condition must be 'Actively Eroding' or 'Drained'
- No drainage or vegetation removal since 2015
- Restoration activities must not include forestry removal
- Restoration must not be legally or contractually required
- Restoration activities must not conflict with any other land management agreements
- Project must be additional i.e. it must require carbon finance to take place
- Project must be able to enter a minimum contract of 30 years

Peatland type

<https://www.iucn-uk-peatlandprogramme.org/about-peatlands/uk-peatlands>

Type	Form	Nutrient status	Water source
Blanket Bog	Blanket of peat following contours of landscape	Poor / acidic	Precipitation
Raised Bog	Localised domes of peat – mainly in lowlands	Poor / acidic	Precipitation
Fen	Widespread areas usually in lowlands	Varies with geology – affects plant types	Precipitation and groundwater

Minimum Peat depth

Project duration	Minimum peat depth
30-50 years	50 cm for 75% of survey points
50+ years	Depth at 75% of survey points must equal project duration. i.e. 75 Years = 75% at 75cm 100 years = 75% at 100cm

- Assumes loss of 1cm per year
- Must apply to all assessment units
- How to assess before detailed survey?
 - Site visit, local knowledge and imagery may help

Condition categories

Category	Description	Eligible
Actively eroding – Hagg Gully	Steep bare peat cliffs and/or bare gully bottoms	Yes
Actively eroding – Flat / Bare	Extensive continuous bare peat (e.g. peat pan or former cutting site)	Yes
Drained - Artificial	Within 30m of an active artificial drain (grip)	Yes
Drained - Hagg / Gully	Within 30m of hagg/gully drainage system	Yes
Modified	Highly degraded – little sphagnum, heather dominant, frequent bare peat patches (micro erosion) Moderate degradation – some sphagnum, scattered heather , limited bare peat patches	No
Near natural	Sphagnum dominated, heather and bare peat scarce or absent	No

Other eligibility considerations

- No drainage or vegetation removal since 2015
 - Ask owners / occupiers / neighbours about site history
- Restoration activities must not include forestry removal
 - Forested peatland unlikely to be eligible
- Restoration must not be legally or contractually required
- Restoration activities must not conflict with any other land management agreements
 - Ask owners if they have any legal / contractual agreements to restore peatlands, what other land management agreements cover the land (i.e. HLS agri environment, countryside stewardship, access agreements etc) and if they anticipate any conflicts with restoration.
- Project must be additional i.e. it must require carbon finance to take place
 - Additionality calculator will determine this
- Project must be able to enter a minimum contract of 30 years

2. Emissions Calculations

Current Category	Area	Future Category	C saved / ha / 5 years (tCO ₂ e)	C saved over project duration (tCO ₂ e)
Actively Eroding: flat bare		Drained: Re-vegetated Actively Eroding	96.5	
Actively Eroding: gully (2.5m buffer)		Drained: Re-vegetated Actively Eroding	96.5	
Actively Eroding: hagg (1m buffer)		Drained: Re-vegetated Actively Eroding	96.5	
Drained: artificial (30m buffer)		Modified	10	
Drained: hagg / gully (30m buffer)		Modified	10	
Modified		Modified	0	0
Near Natural		Near Natural	0	0
Non-Peatland		Non-Peatland	0	0

Bare Peat Restoration

Hydrological Restoration

Total carbon savings

Emissions calculator

e.g. 2281 tCO₂e
Saving over 30
years

Assessment Unit	Area (ha)	Pre-Restoration (Baseline) Condition Category	Post-Restoration Condition Category
AU1	3.89	Actively Eroding: Flat Bare	Drained: Re-Vegetated AE
AU2		Actively Eroding: Hagg/Gully	Drained: Re-Vegetated AE
AU3	12.16	Drained: Hagg/Gully	Modified
AU4	9.26	Modified	Modified
AU5		Non-Peatland	Non-Peatland
AU6			
AU7			
AU8			
AU9			
AU10			
Total	25.31		

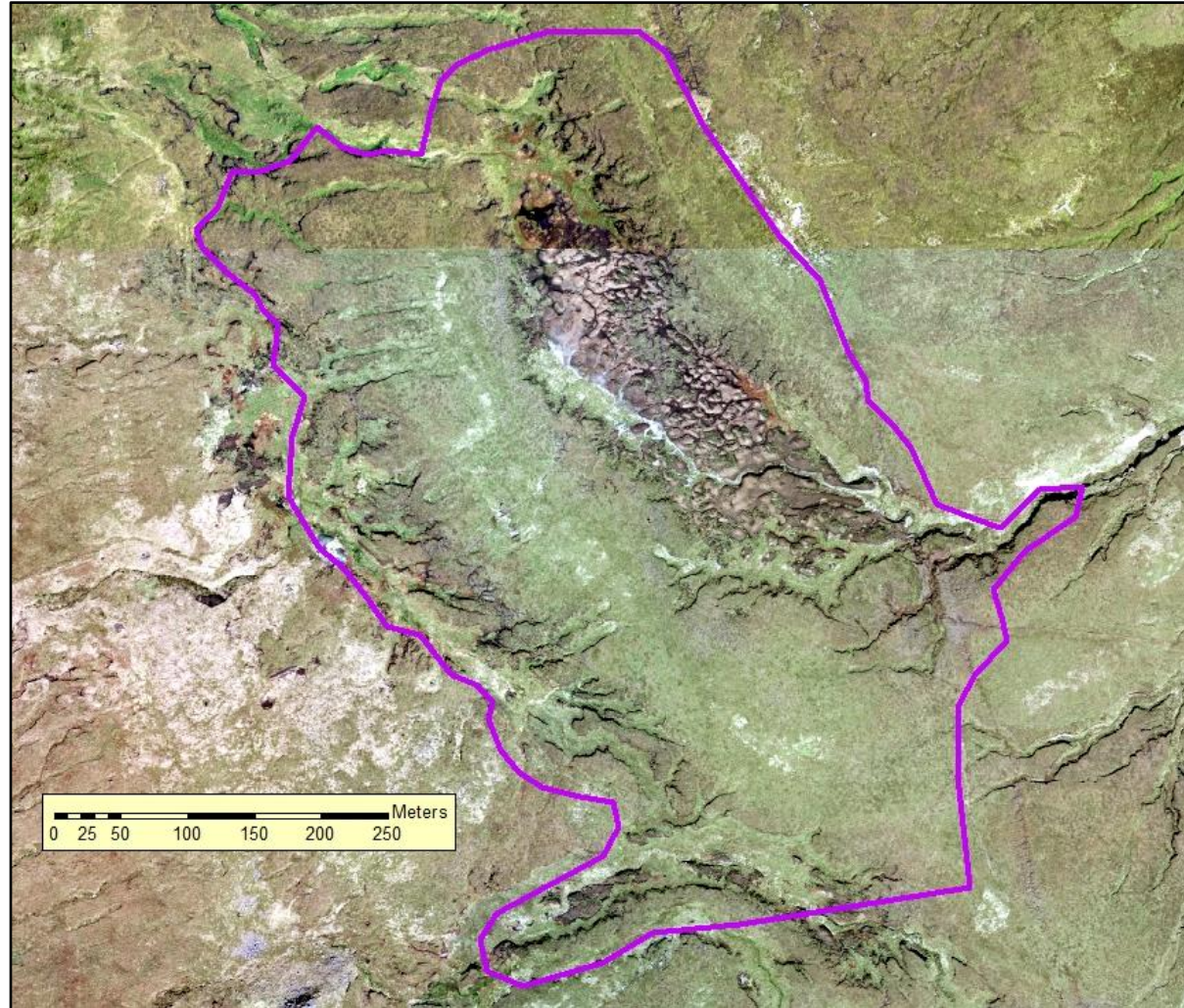
Table 5

Cumulative Emissions Reduction over project duration (tCO ₂ e)					
Period (Year)	Gross Emissions Reduction	Emissions Reduction less 10% model precision	Net Emissions Reduction adjusted for Leakage (tCO ₂ e)	Cumulative Risk Buffer Contribution (tCO ₂ e)	Cumulative Claimable Emissions Reduction (tCO ₂ e)
0-5	497	447	447	67	380
5-10	994	895	895	134	760
10-15	1491	1342	1342	201	1141
15-20	1988	1789	1789	268	1521
20-25	2485	2236	2236	335	1901
25-30	2982	2684	2684	403	2281

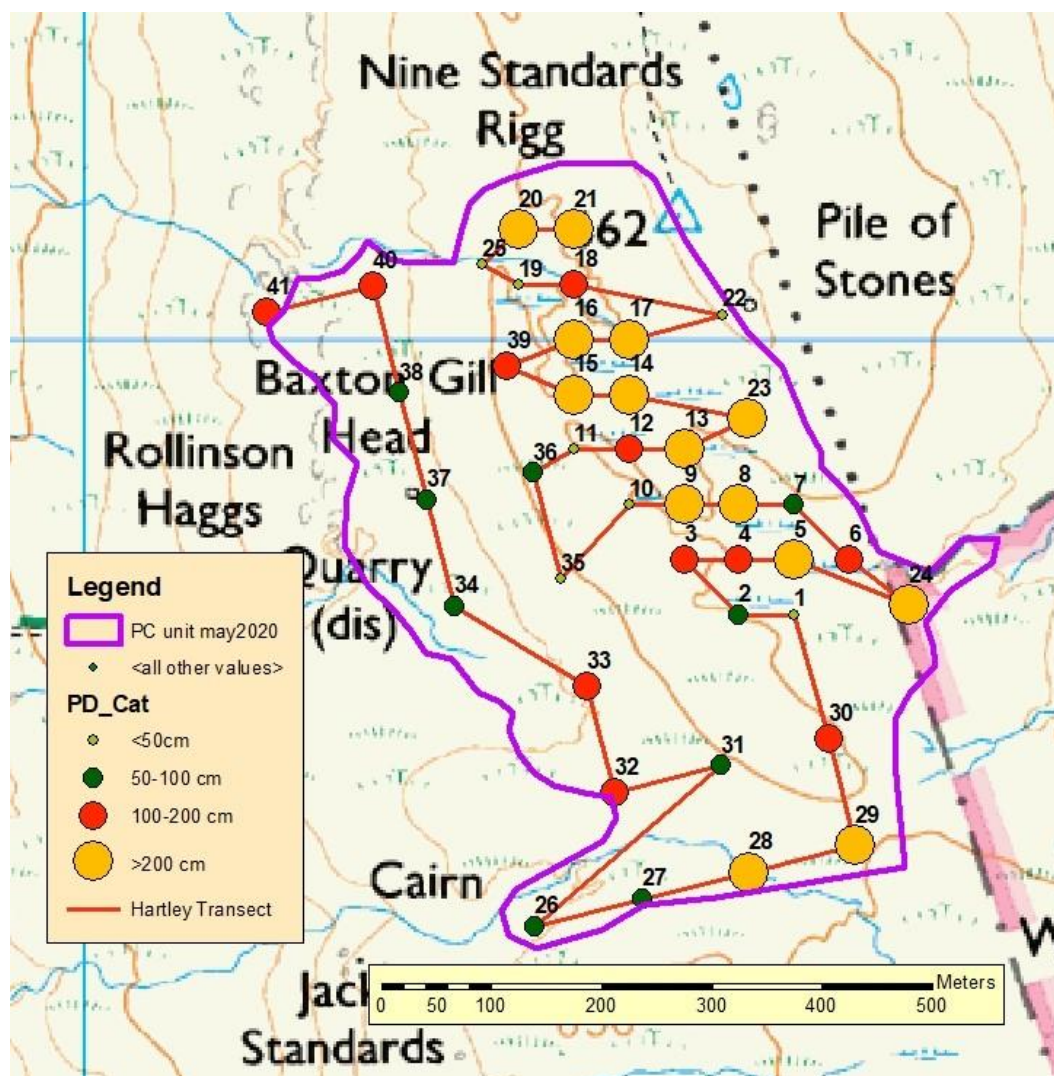
2. Mapping and survey

- Pre survey - grids, site boundary, non peatland etc
- Survey data – photos and peat depth, drone imagery
- Likely assessment units
- Restoration considerations
 - Haggs to reprofile
 - Grip blocking
 - Gully blocking
- GIS work
 - Outlines and buffers
 - Area calculations
 - Automatic scripts

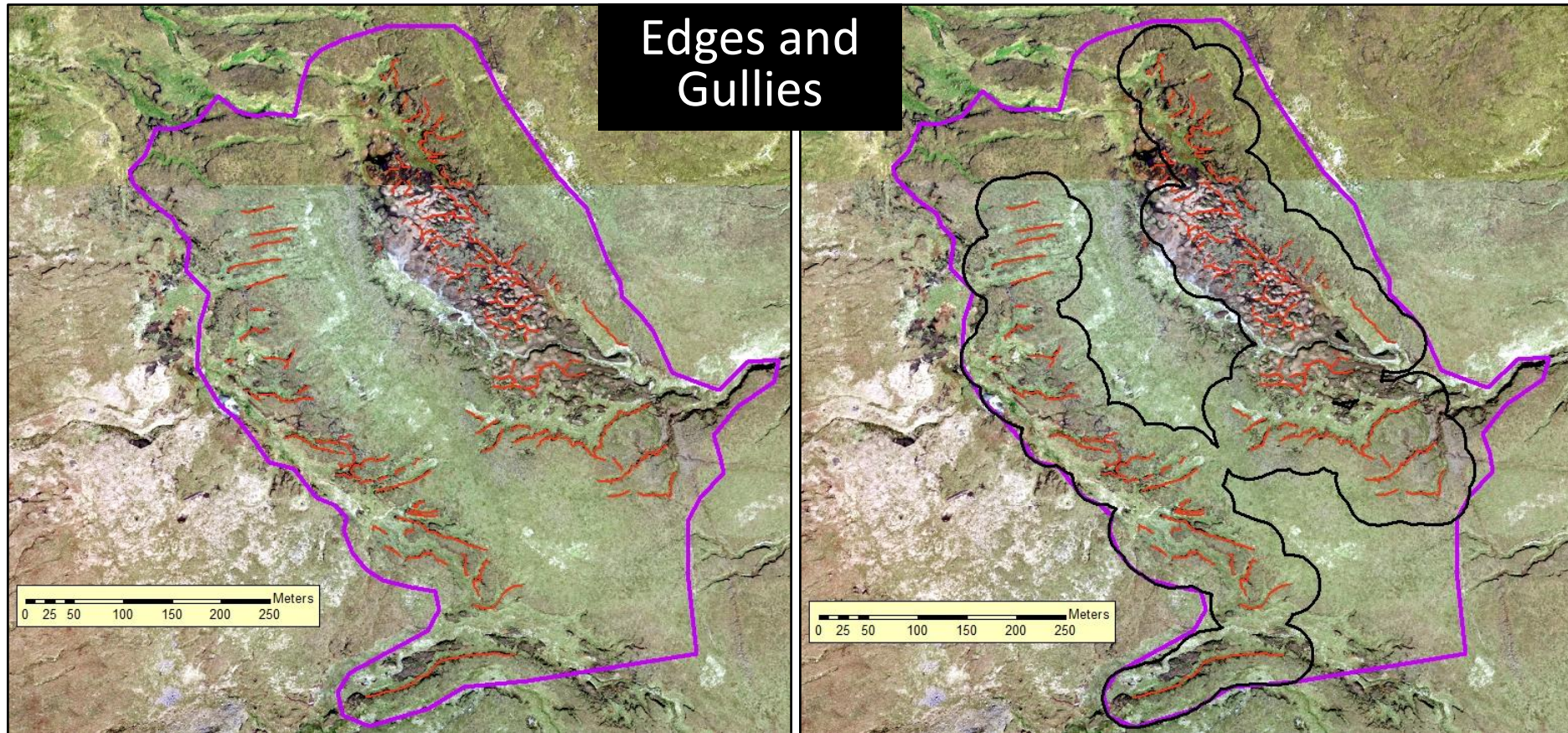
Desk assessment



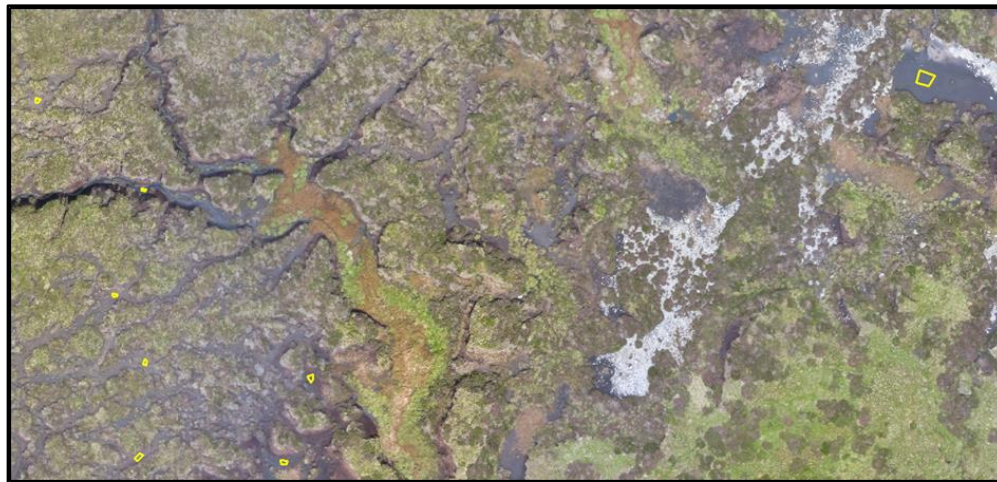
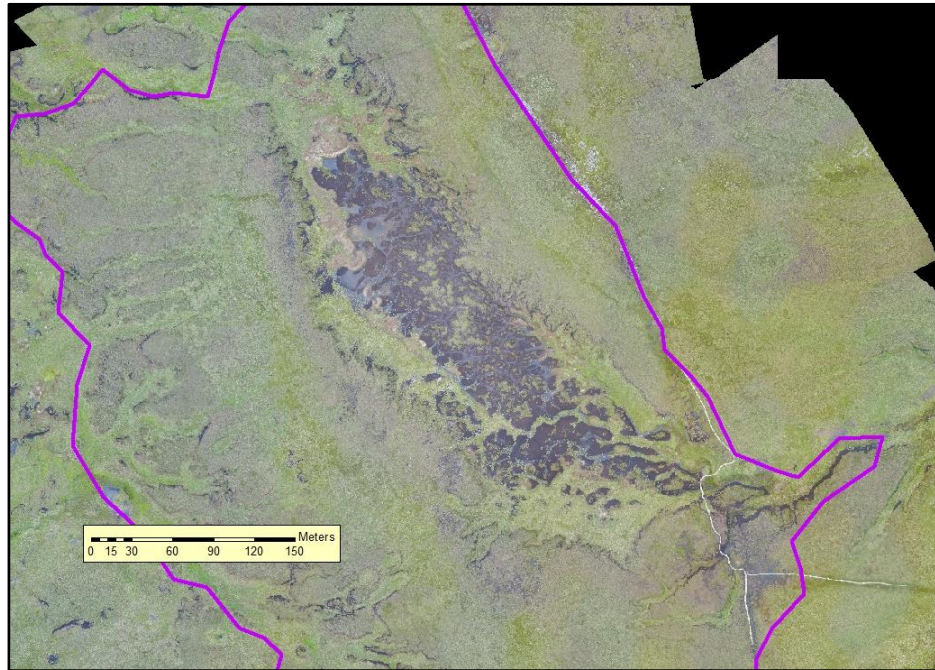
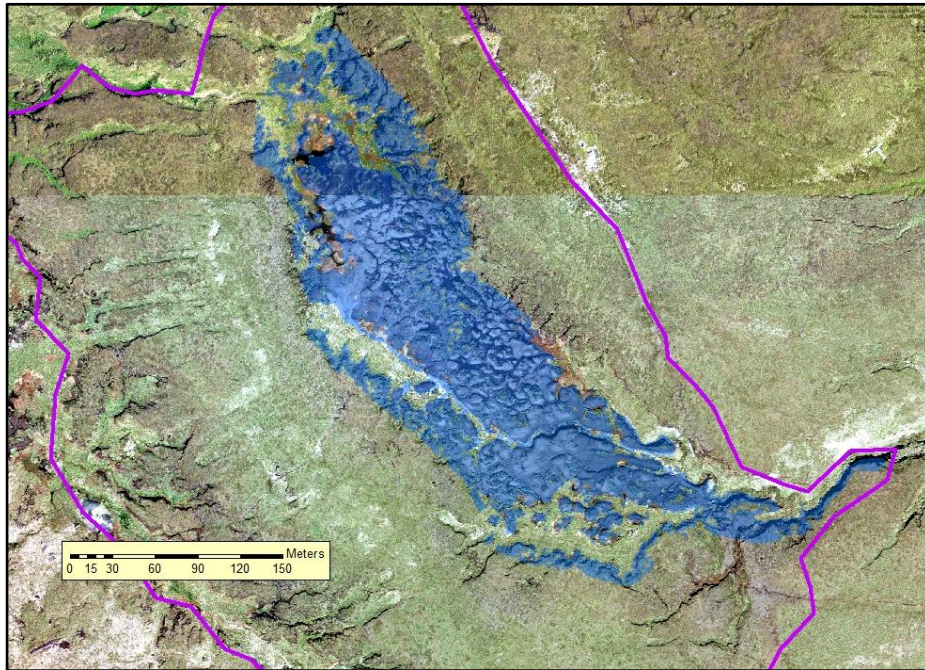
Ground Survey



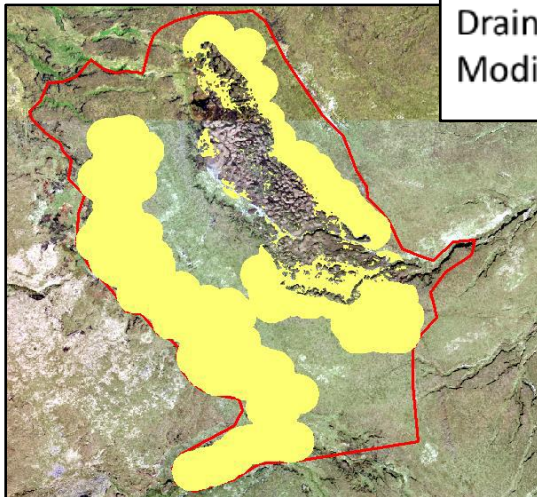
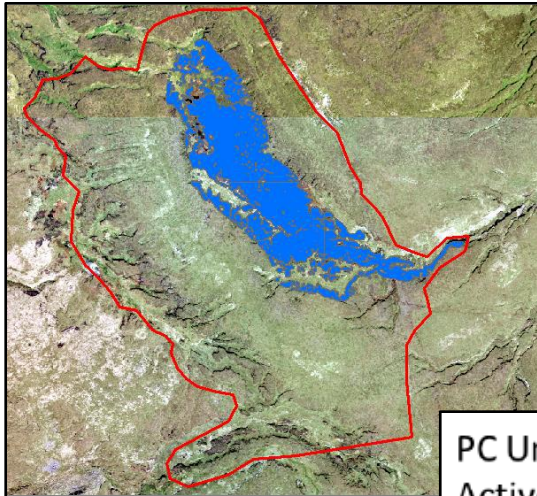
Tracing and buffering



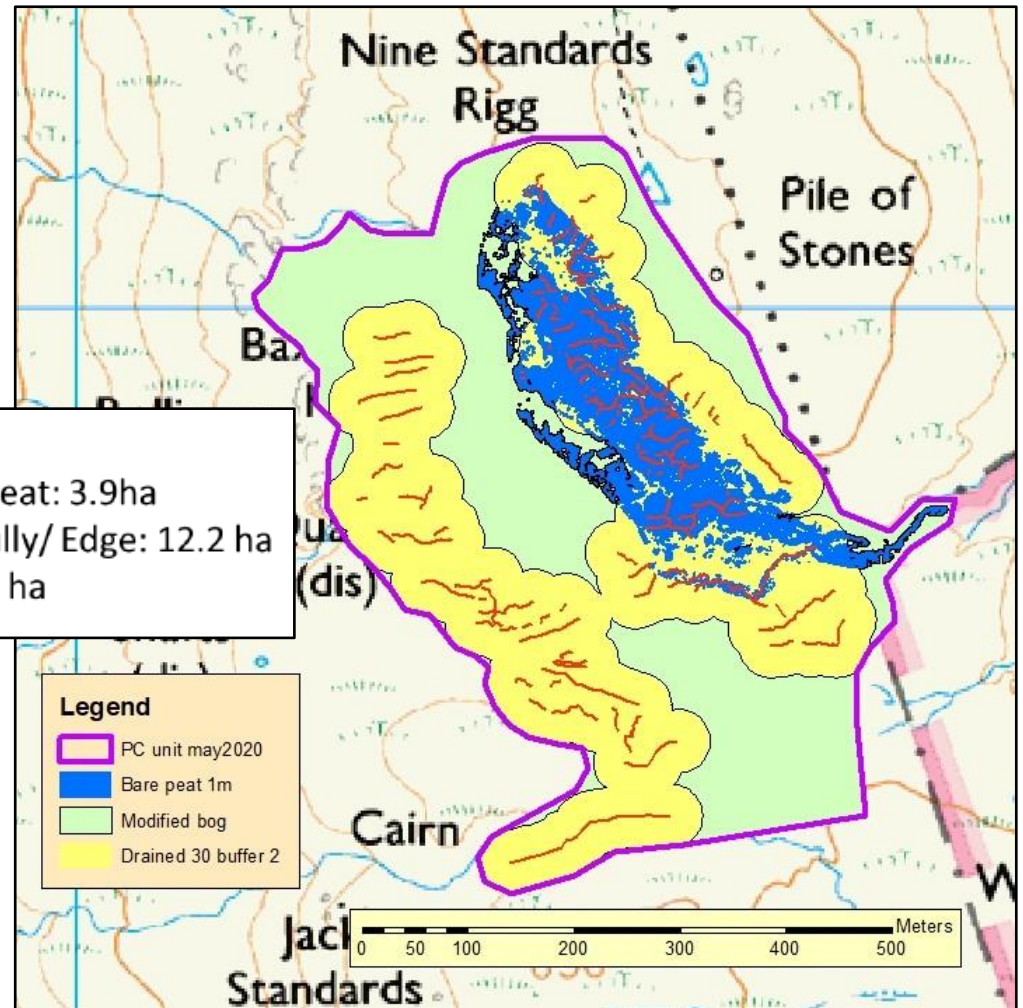
Bare Peat Classification

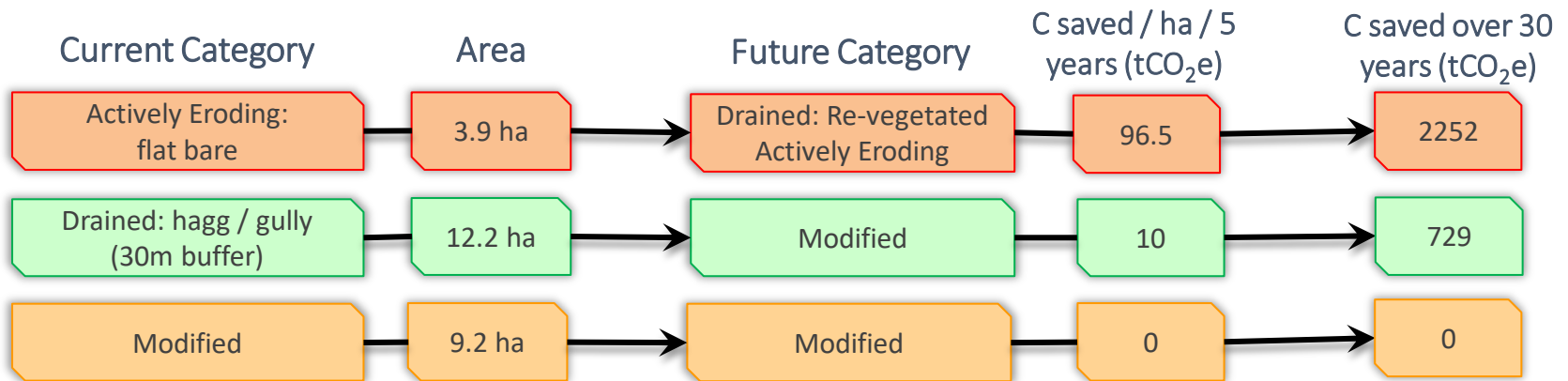


Area Calculations



PC Unit: 25.2 ha
Actively Eroding Peat: 3.9ha
Drained Hagg/ Gully/ Edge: 12.2 ha
Modified Bog: 9.2 ha

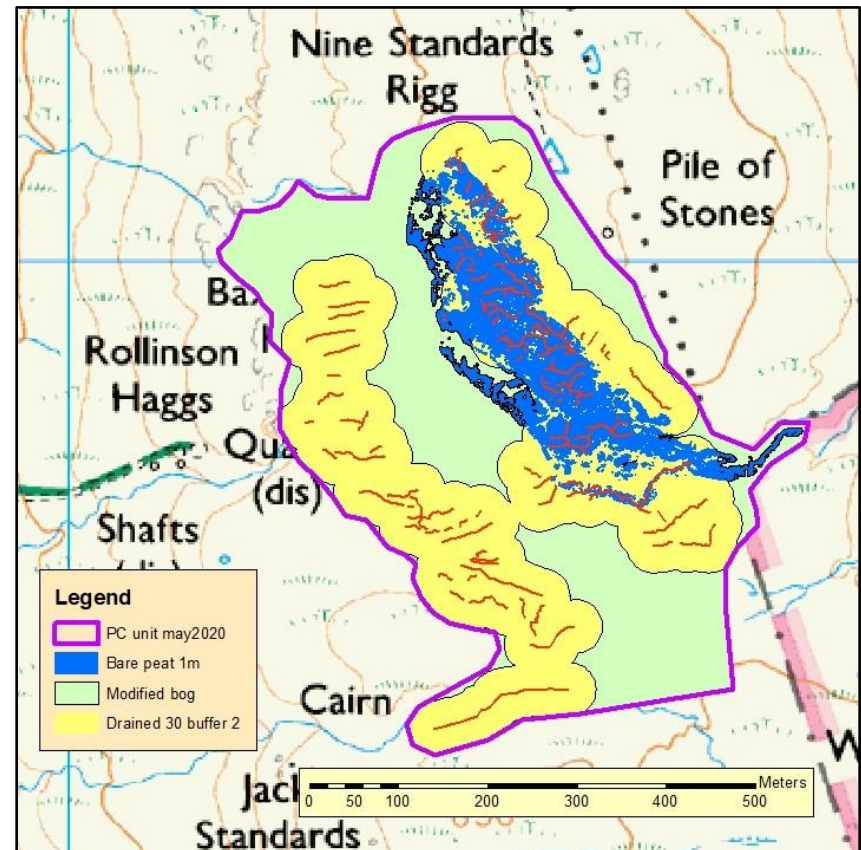




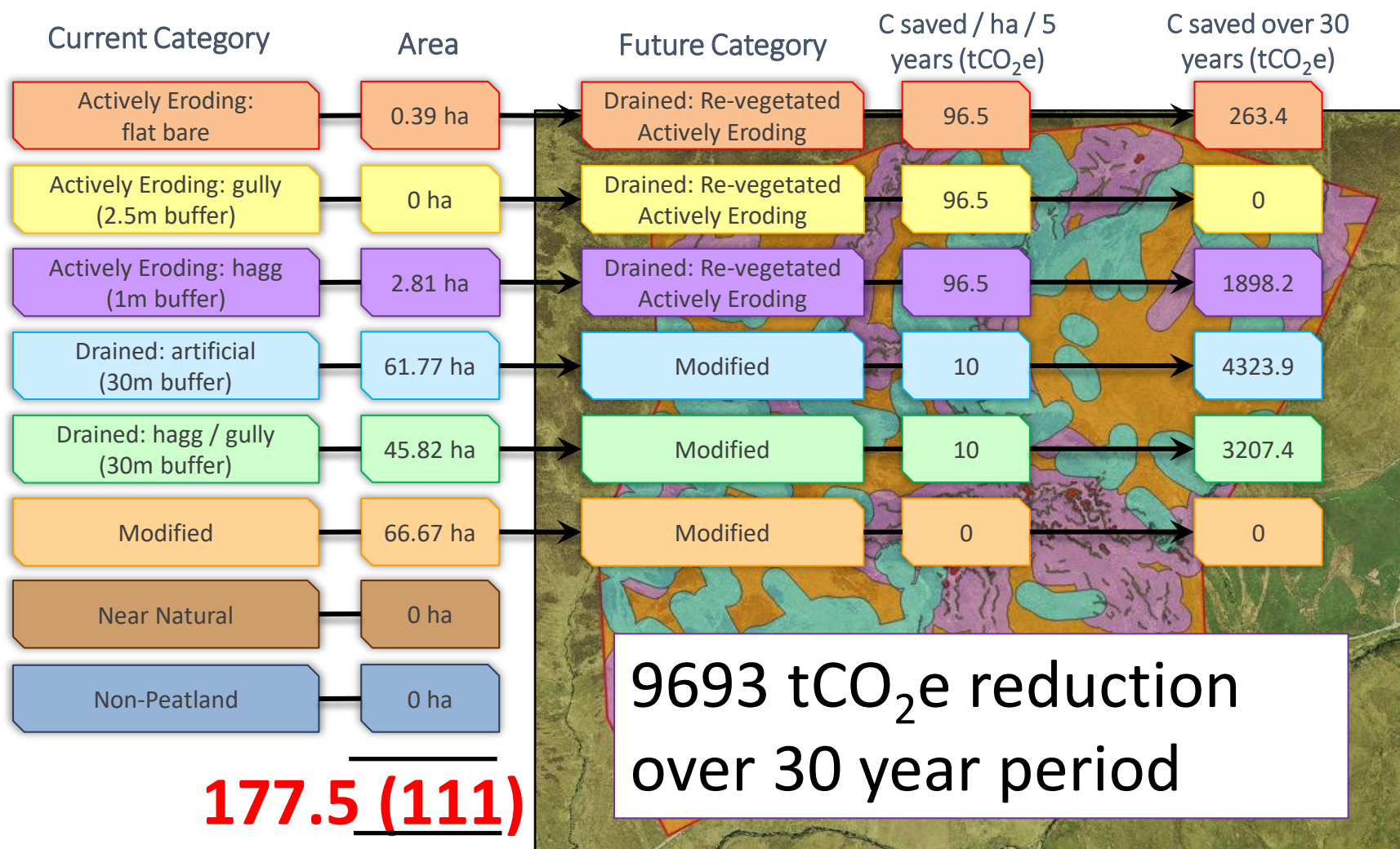
25.3 (16.1)

Hartley Common North Pennines

2981 tCO₂e
reduction over 30
year period



Blaen y Coed - Wales



3. Finance

- Restoration specification
- Grants available
- Top up measures
- Peatland code costs
- Landowner / administration costs

<u>Test 2</u>				
% Grant Funded:				40.57%
% Carbon Finance Required:				59.43%
<u>Test 3 (NPV)</u>				
Discount Rate:				3.00%
Including Carbon:				263862
Excluding Carbon:				-69150.5
Inflation rate				2.70%

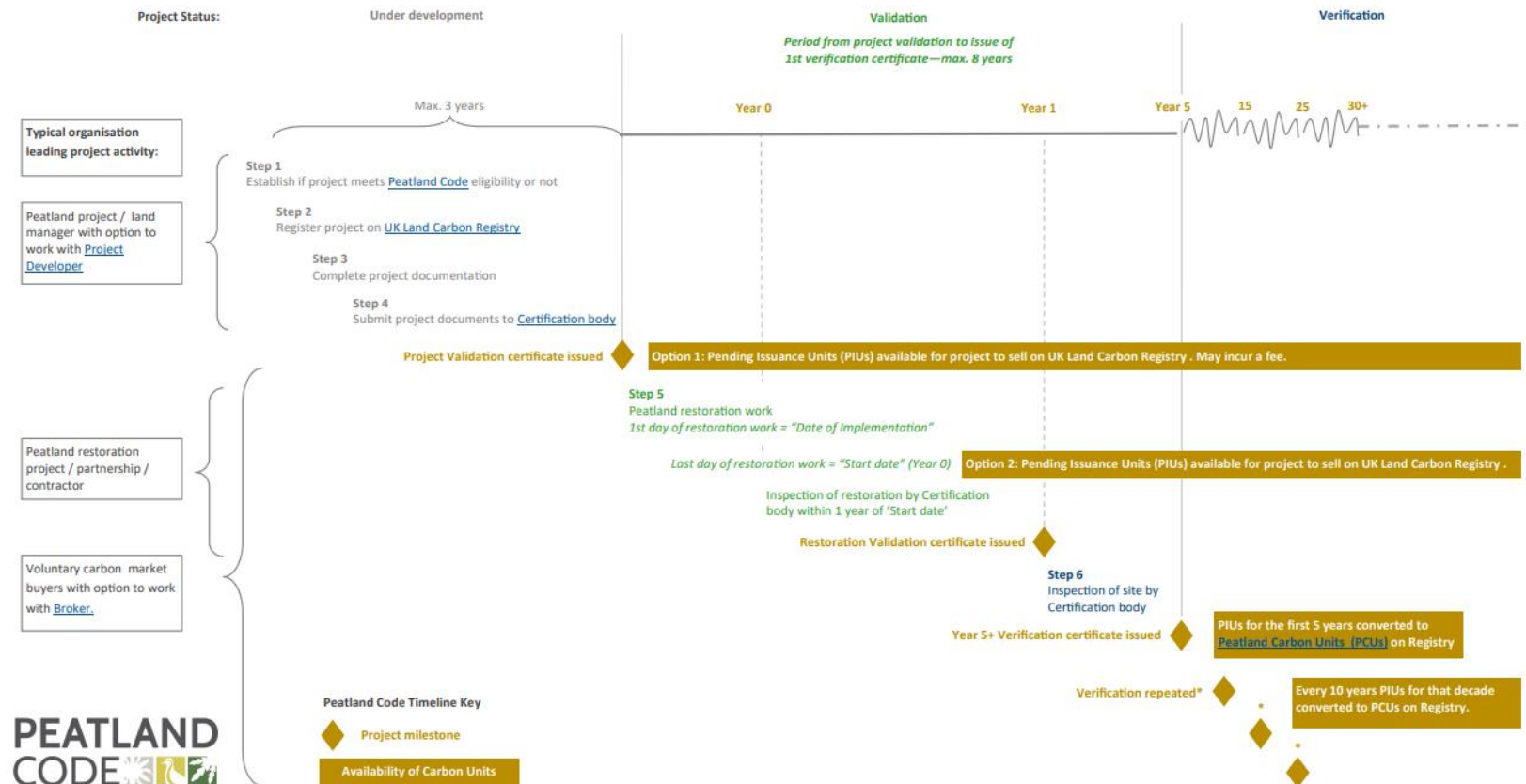
4. PDD and other Documents

- PDD (Project design document)
 - Incorporates
 - Emissions calculator
 - Additionality calculator
- Risk assessment
- Others (may be included in PDD)
 - Project maps
 - Management plan
 - Monitoring plan
 - Landowner and Project developer commitments

Project Design Document

1. Eligibility and Governance	4
1.1 Eligible Activities	4
1.2 Project Duration	4
1.3 Eligible Land	5
1.4 Consultation	5
1.5 Additionality	6
1.6 Avoidance of Double Counting	6
1.7 GHG Statements	7
2. Project Design	7
2.1 Management Plan	7
2.2 Monitoring Plan	8
2.3 Management of risks and permanence	8
3. GHG emission reduction	9
3.1 Establishment of Baseline Emissions	9
3.2 Leakage	9
3.3 Net Project GHG emission reduction	10

The Peatland Code - timeline



PEATLAND CODE

Peatland code - steps

- Survey on 100m grid with peat depth, photos, category / vegetation
 - Restoration plan
 - Map of restoration interventions to calculate areas of category change
 - Emissions calculator (using category change areas)
 - Create IHS Markit account (for project developer or landowner)
 - Register site on IHS Markit
 - Project Design Document (PDD)
 - Consultation responses (see PDD)
 - Contractor quotes for restoration costs
 - Secure grant funding including evidence letters for validators
 - Additionality calculator (using restoration and peatland code costs and grant funding details)
 - Project Risk Assessment
 - Validation application form (from OF and G or Soil association)
 - Communications agreement (if landowner not IHS Markit account holder)
- } Survey and Mapping

Q+A