

Scottish Natural Heritage

# Carbon-rich soils, deep peat and priority peatland habitat mapping

## Consultation analysis report

June 2016



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Cover photo - Windfarm on peatland, Caithness ©Lorne Gill/SNH

## Introduction

In early 2015, Scottish Natural Heritage (SNH) consulted on a consolidated spatial dataset of areas of carbon-rich soils, deep peat and priority peatland habitats in Scotland. The consultation ran from 14 January to 13 March 2015.

Our approach to mapping areas of carbon-rich soils, deep peat and priority peatland habitat is derived from SNH's earlier work in 2011<sup>1</sup> and 2013<sup>2</sup> to define the state of Scotland peatlands and the extent of carbon-rich soils. It is a three-step approach:

- The carbon-richness and peat-depth values of individual mapped areas are inferred from the soil type as mapped by the Soil Survey of Scotland
- The likely extent of peatland habitat is mapped across Scotland using a re-evaluation of existing vegetation surveys
- Finally, the soil and vegetation attributes are combined to define classes of land likely to hold carbon-rich soil, deep peat and priority peatland habitat

The consultation map and associated dataset – referred to from now on as the Carbon and Peatland map (2014) – are derived from existing national soil and vegetation datasets. Carbon and Peatland (2014) was intended to indicate at a national scale the likely presence of carbon-rich soil, deep peat and priority habitat. It did not infer any significance of the effects of development or land management on the qualities of areas identified as being carbon-rich soils, deep peat and priority habitat.

Five output classes were used in the consultation map.

- Class 1** All vegetation cover indicates priority peatland habitat; all soils are carbon-rich soils and deep peat
- Class 2** Most of the vegetation cover indicates priority peatland habitat; all soils are carbon-rich soil and deep peat
- Class 3** Vegetation cover does not indicate priority peatland habitat, but is associated with wet and acidic soil types; most soils are carbon-rich soils, with some areas of deep peat
- Class 4** Area unlikely to be associated with peatland habitat or wet and acidic soils; area unlikely to include carbon-rich soils
- Class X** Vegetation cover does not indicate peatland habitat; all soils are carbon-rich soil and deep peat

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<sup>1</sup> SNH Information Notice 318 - <http://www.snh.gov.uk/docs/A602512.pdf>

<sup>2</sup> Scottish Peatlands –Definitions and Information Resources (see Appendix 2)  
[http://www.snh.org.uk/pdfs/publications/commissioned\\_reports/701.pdf](http://www.snh.org.uk/pdfs/publications/commissioned_reports/701.pdf)

In the consultation, respondents were asked to comment on four main aspects of the Carbon and Peatland (2014) map and its development:

- Q.1 Do you think SNH's approach to mapping carbon-rich soils, deep peat and priority peatland habitat is appropriate and scientifically-robust?
- Q.2 Are there any issues related to the methodology used for creating the map, or other issues related to the rationale for creating the Carbon and Peatland (2014) map which you would like to raise?
- Q.3 Do you agree that classes 1 & 2 of the Carbon and Peatland (2014) map shown in Table 4 should be used as the basis for mapping carbon-rich soils, deep peat and priority peatland habitat as set out in Table 1 of Scottish Planning Policy (SPP)?
- Q.4 Do you have any other comments relating to the location and definitions of carbon-rich soils, deep peat and priority peatland habitat?

The following section summarises the responses to the consultation. It provides answers to the main issues raised by respondents and brief descriptions of the follow-up modifications to the methodology subsequently used to create the new Carbon and Peatland 2016 map and dataset.

Annex 1 provides links to the consultation responses received.

SNH guidance *Spatial Planning for Onshore Wind Turbines*<sup>3</sup> provides additional information on wider natural heritage considerations, including the use of the Carbon and Peatland 2016 map in preparing spatial frameworks.

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<sup>3</sup> <http://www.snh.gov.uk/docs/A1663759.pdf>

## Part 1 - Consultation analysis summary

### 1.1 Distribution of responses by respondent type

34 responses were received. They have been grouped for analysis into five broad categories (further detail is provided in Annex 1).

Table 1 – Distribution of responses received by respondent type

	Number of respondents	Full or partial response provided				
		Q1	Q2	Q3	Q4	AOC
Industry (renewables/water)	13	13	13	13	12	7
Environmental NGO	6	6	6	4	4	3
Planning Authority	11*	10	9	10	9	3
Government Agency/SG Main Research Providers	3*	2	2	2	2	1
Individual	2	2	2	2	1	1
<b>Total</b>	<b>34</b>	<b>33</b>	<b>32</b>	<b>31</b>	<b>28</b>	<b>15</b>

\* One respondent provided a 'no comment' response to the consultation.

### 1.2 Key issues raised in the responses to the consultation

Although most of the responses to the consultation were supportive of the aim to create the Carbon and Peatland (2014) map output, issues were raised about both the intended scope and use of the output produced as well as the detail of the methodology.

#### Issues about scope and use of the output

The need for clarity on the scope and definitions underpinning the use of the Carbon and Peatland (2014) dataset and its relation to SPP requirements were key concerns for most of the respondents.

The issues raised by respondents about the scope and use of map outputs were summarised into five broad questions:

- P1 What are carbon-rich soil, deep peat and priority peatland habitat? What is meant by 'priority'?
- P2 How should the Carbon and Peatland map be used to define a potential constraint on Group 2 areas of significant protection (as set out in SPP)?
- P3 Can the map information be used for purposes other than meeting the needs of Table 1 in SPP, for example to highlight the restoration potential of peatland areas?

- P4 Where does the Carbon and Peatland map stand in the hierarchy of planning decision-making processes? What is its relationship with development management and site assessment?
- P5 How will the consistency of advice/guidance across policy interests be assured, and what are the relationships with other peatland and interpretative maps (past and present) which may be used by planners and developers?

### **Issues about methodology**

The other broad category of comments received related to the methodology used to create the dataset. Most of the respondents highlighted the need to explain the lineage of the information used; clarify the accuracy of data output and the scale limitations; and make the map more user-friendly.

The issues raised about methodology were summarised into six broad questions:

- M1 Demonstration of the relevance of LCS88 compared with other habitat datasets for Scotland (i.e. LC2007, CORINE, NVC maps)
- M2 Justification of both the choice of a deep peat depth threshold of 0.5m and the choices of carbon classes
- M3 Revision of some of the soil and habitat combination classifications
- M4 Consideration of the accuracy of the underpinning data – including alternative approaches for areas with soil information mapped at 1:250,000 and at 1:25,000 scale
- M5 The need to improve the accessibility and user-friendliness of the map output and dataset, including provision of information on unclassified soil and the sub-categorisation of classes to identify constraints in Class 1 and Class 2 areas
- M6 Clarification on getting access to the dataset and the procedure for release of updates to the data

### **Variation in views among different types of respondent**

Some broad differences were noted in the comments made by respondents in the different categories outlined above. These differences are summarised below.

#### **Industry (13 responses)**

Broadly supportive of the overall purpose (66% supportive on Q1)

However, more concern about the methodology (66% expressing concerns in response to Q2)

- Clear view that the map should not be seen as a substitute for site assessment

- Accuracy of the map is dependent on the accuracy of data – and so its value is limited to use in guidance tools for high-level assessment
- There is a need for supporting guidance on appropriate use of the map output (including clarifying/reconciling overlapping guidance produced by different statutory consultees involved in the planning system)
- The term 'priority' should be clearly defined
- It is important to recognise that the current data are not accurate enough to define areas of significant protection (as defined in SPP) leading to little confidence in the spatial distribution of classes
- Query about the relevance of Class X
- Conflicting view on the appropriate minimum peat depth – whether it should be 0.5m, 1m or 1.5m
- Concern about both interim use of the draft map by LAs as well as when and how future updates will be issued

### **Planning Authorities (11 responses)**

Mostly supportive of overall purpose (90% supportive on Q1)

However, these respondents had additional queries on methodology (30% had concerns about the issues in Q2)

- Concerns were expressed about the unsuitable scale of the map; data quality; and the relevance and benefit of the combined dataset
- There is a need for further guidance, including an explanation of the links with earlier carbon-rich soil classes 5 & 6 as well as other soil issues in SPP
- Requests for clarification on how the requirement in SPP should be addressed through local planning processes

### **Environmental NGO (6 responses)**

All respondents in this category disagreed with the methodology (100% against on Q2)

- Approach does not consider or highlight the restoration potential and risks to hydrological connectivity
- Major concerns about the quality of the underpinning habitat data
- Concern about abuse of the map as a means to promote development on peatland which otherwise has potential for restoration
- Weighting/prioritisation of use of peatland in policy

### **Government Agency/Main Research Providers (2 responses)**

Broadly supportive of the overall purpose (Q1) with a request for clarification of definition and adjustments to the GIS methodology.

- Consolidation of data may lead to misinterpretation
- The map needs to be supported by guidance
- Issues with definition of the term 'priority' in priority peatland habitats and its relationship to Habitats Directive Annex 1 priority habitats

- Broadly supportive of the approach and feel it is a useful tool at strategic-planning level

### **Individual (2 responses)**

No common themes in these responses.

- A range of concerns about definitions and use of the map



## Part 2 – Our approach to the issues raised

The following section explains how we have addressed the main issues raised in the consultation.

In response to these queries, a new Carbon and Peatland (2016) map has been prepared by SNH. It has taken into consideration, where appropriate, the comments received during the consultation.

### 2.1 What are carbon-rich soils, deep peat and priority peatland habitat?

The term ‘carbon-rich soils, deep peat and priority peatland habitat’ was first used in the version of Scotland Planning Policy published in 2014. This is one category of nationally-important mapped environmental interests to be considered in the preparation of spatial frameworks for onshore wind farms.

The following definitions are used in the Carbon and Peatland 2016 map. They are informed by the established Scottish soil and habitat classification systems – and take into account that the terminology is to be used in the development planning process.

#### Carbon-rich soils

- **Carbon-rich soil** is any soil with a surface organic layer (the O horizon as defined in the Scottish soil classification). In this context, it includes surface layers often referred to as peaty soil and peat soil.

Carbon-rich soil is important as a carbon store. This is not a standard term used in the Soil Survey for Scotland classification and so carbon-rich soils are not mapped directly. However, the soil classification for Scotland records information on the presence and known depth of the peat layer (i.e. the carbon-rich layer) for all soil types present. As a result, the location of carbon-rich soil can be inferred and mapped at a national level.

#### Deep peat

- It is defined here as soil with a surface peat layer of greater than 50cm. This is consistent with the definition used by other public bodies in Scotland, in particular Forestry Commission Scotland.

## Priority peatland habitat

- **Priority peatland habitat** is as defined in the UK Biodiversity Action Plan (UKBAP) and Scottish Biodiversity Strategy framework – it is not derived from the terminology used in Annex 1 of the EC Habitats Directive or other sources.

The four peat-forming priority peatland habitats as defined in UKBAP are:

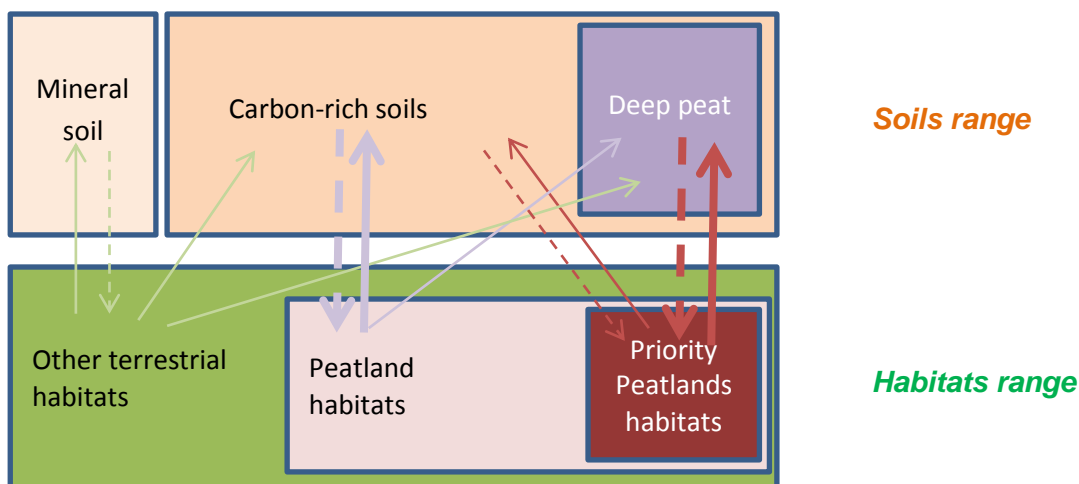
- Blanket Bog
- Lowland Raised Bog
- Lowland Fens, and
- Upland Flushes, Fens and Swamps (part only)

Information on the distribution of UKBAP habitats in Scotland is available from a range of sources including Countryside Survey (as a subset of broader habitats) and the LCS88 dataset.

The use of the UKBAP definition is the current preferred option for small-scale mapping of the resources. The use of site-level survey and assessment of individual communities and species compositions (e.g. NVC Phase 1) is not recommended at this scale of assessment, but will be an essential tool for use in development management. However, equivalence tables between different classification systems are available.

### Carbon-rich soils, deep peat and priority peatland habitat

Areas of **carbon-rich soils, deep peat and priority peatland habitat** will be taken as areas which include all three of the individual elements defined above.



Upward arrow indicates that habitats type can be found on soil type – downward arrow indicates that habitat type contribute to soil type formation.

Figure 1. Illustration of habitat and soils relationships

## **2.2 Can the Carbon and Peatland 2016 map categories be used to define a potential constraint on areas of significant protection (Group 2 areas in SPP Table 1)?**

The purpose of the Carbon and Peatland map is to inform the preparation by planning authorities of spatial frameworks for onshore wind. It has been created to help provide a consistent approach across Scotland.

The map provides planning authorities with the information they need to implement SPP which requires planning authorities to develop spatial frameworks for onshore wind. Table 1 in SPP sets out what should be shown in these spatial frameworks. Alongside other areas to be included, planning authorities are required to include carbon-rich soils, deep peat and priority peatland habitat – and to afford these areas significant protection, although this is not a ban on development.

The map shows the areas of peat referred to in Table 1 in SPP – carbon-rich soil, deep peat and priority peatland habitat. On the map, the top two classes (1 and 2) taken together identify the nationally-important resource:

### Class 1

- Nationally important carbon-rich soils, deep peat and priority peatland habitat\*
- Areas likely to be of high conservation value

### Class 2

- Nationally important carbon-rich soils, deep peat and priority peatland habitat
- Areas of potentially high conservation value and restoration potential

\*Priority peatland habitat is land covered by peat-forming vegetation or vegetation associated with peat formation.

The map itself cannot provide information on the significance of any possible effects of development. This can only be done at the development management stage using information provided in the Environmental Statement. Such information should be mainly in, but not necessarily restricted to, the Ecology Chapter and the Geology and Hydrogeology Chapter, together with supporting Appendices. It should be complemented by aerial photography and other relevant data as well as additional field observations.

## **2.3 Can the map information be used for purposes other than meeting the needs of Table 1 in SPP, for example to highlight the restoration potential of peatland areas?**

The Carbon and Peatland 2016 map was produced primarily to inform the preparation of spatial frameworks for onshore wind farms – the map helps to identify the location of Group 2 areas as defined in Table 1 of SPP.

However, the absence of carbon-rich soils, deep peat and priority peatland habitat on the map does not mean that soils and habitats in these other areas have no current or potential ecological value. Additional data analysis and other uses of the map are always possible, but these will not be supported by current SNH guidance.

#### **2.4 Where does the Carbon and Peatland map stand in the hierarchy of decision-making processes? What is its relationship with development management and site assessment?**

The map has two main purposes:

- To enable Planning Authorities to map carbon-rich soils, deep peat and priority peatland habitat in a consistent manner for the preparation of spatial frameworks for onshore wind farms – and meet the requirements of Table 1 in SPP
- To identify the nationally-important resource

It is important to recognise that the map is not establishing a new category of designation and that it has limitations due to the relatively coarse scale of the supporting data. Development proposals, whether in the mapped area or not, will always require a site-specific, detailed peat and vegetation survey to show the quality and distribution of peatland across the site.

#### **2.5 How will the consistency of advice/guidance across policy interests be assured; and what are the relationships with other peatland and interpretative maps (past and present) which may be used by planners and developers?**

SNH will work with the other key agencies to ensure that our advice is aligned and we avoid duplication. We are committed to improving the clarity and quality of advice given to planning authorities in responding to planning consultations. SNH is developing joint procedures with SEPA to ensure that where there is a joint interest we work together prior to responding to planning consultations and that advice to customers is complementary and not conflicting.

Planning authorities and other key stakeholders will be informed of these arrangements and the guidance will be reviewed one year after adoption.

The links among different sources of information is explained in the methodology outlined in Part 3 of this report The Carbon and Peatland 2016 map refines and complements information already published.

#### **2.6 Why are we using LCS88 habitat data?**

The LCS88 dataset provides national land cover information in greater detail, especially in upland areas in Scotland, than other sources which either only provide

broad level data (LCM2007) or only cover part of Scotland (Phase 1, NVC). Habitat information in LCS88 is provided as a mosaic of vegetation types where these exist, rather than as single classes. This enables a more accurate assessment of the likely presence of peat-forming vegetation.

The methodology was updated to reflect comments received in response to the consultation (see Part 3 of this report for more detail).

## **2.7 Selection of deep peat depth threshold**

The threshold for deep peat for the Carbon and Peatland 2016 map is fixed at 0.5m. This is consistent with the definition used by other public bodies in Scotland, in particular Forestry Commission Scotland.

## **2.8 Revision of soil and habitat mapping classification**

Table 3 and table 5 in Part 3 of this document has been updated to provide better differentiation between wet heath and peatland habitat. At a national level, this does not fundamentally change the distribution of mapped carbon-rich soils, deep peat and priority peatland habitat.

Non-soil, mineral soil and unknown soil type classes have been differentiated to allow for ease of interpretation of the map.

## **2.9 Alternative mapping approach for areas with soil and/or habitat information mapped at different scales**

There is no single approach which is suitable when dealing with data of different accuracy and scale.

In order to enable effective comparisons, we advise that the same analytical procedure should be applied to all areas whatever the quality and spatial-accuracy of the underpinning data. The Carbon and Peatland 2016 map includes information about the spatial resolution of the underpinning data.

The difference in the relative abundance of peatland resources across Scotland was mentioned during the consultation as a reason for adjusting the threshold criteria in different places for the selection of carbon-rich soils, deep peat and priority peatland habitats. We decided not to do this in order to maintain a nationally-consistent approach – it is not the purpose of the map to assign different values to peatland resources in different parts of the country.

## 2.10 Accessibility and user-friendliness of the map

The layout of the map has been modified to include information on the location of non-soil areas and unclassified soils. The map also identifies areas which have coverage of higher-resolution soil data.

The dataset is provided as a shape file with information included on the Carbon and Peatland class, soil category and peatland habitats for each polygon.

The map output is provided as a high-resolution image. The Carbon and Peatland classes which were previously covered by category 0 have been divided into three new classes to provide better differentiation among unclassified soil, areas of unknown type and mineral soil. Soil types in soil category 5 or 6 with no peatland vegetation have been recoded as carbon and peatland class 5 (previously class X).

## 2.11 Clarification on access to dataset and the procedure for release of updated data

The Carbon and Peatland 2016 map is available for download from SNH's NaturalSpaces information service<sup>4</sup>. Any updates to the map will also be made available through NaturalSpaces. The map will also be accessible from Scotland's soil website<sup>5</sup>.

Long-term improvements to the dataset rely on research outputs from the Scottish Government RESAS 2016-2021 programme, as well as from SNH work on habitat mapping to generate a new digital soil and habitat map for Scotland.

The latest update to the 1:25,000-scale Soil Map of Scotland (version 4) has been incorporated into the Carbon and Peatland 2016 map. While no further updates of the national soil dataset are planned in the near future, any significant new soil and habitat datasets will be incorporated in future updates of the map.

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<sup>4</sup> <http://gateway.snh.gov.uk/natural-spaces/index.jsp>

<sup>5</sup> <http://www.soils-scotland.gov.uk/data/soil-carbon>

## Part 3 – Finalising the Carbon and Peatland 2016 map

The GIS-based model used to generate the map involved four steps:

- Step 1 Attribution of Soil Carbon code to individual unit on the 1:250,000 and 1:25,000 soil maps
- Step 2 Merging of 2 soil datasets
- Step 3 Recoding of LCS88 and addition of a new revised LCS88 code
- Step 4 Combining LCS88 with merged soil data to create new Carbon and Peatland dataset

The model was revised to reflect the following changes in the methodology:

- Updated version of the Soil Map of Scotland was incorporated (for detail, please see Scotland's soil website<sup>6</sup>);
  - October 2013 version of the 1:250,000-scale Soil Map of Scotland
  - May 2016 version of the 1:25,000-scale Soil Map of Scotland
- Some minor changes were made to the drier descriptions of peatland categories (see detail in Table 1 below)
- There was no change to the recoding of individual LCS88 classes with peatland vegetation interests (Table 2 )
- Some minor changes were made to the LCS88 primary & secondary vegetation categorisation (see Table 3 below)
- Non soils were given a value of -1, and unknown soils were coded as 0 in the soil carbon category (table 4)

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<sup>6</sup> <http://www.soils-scotland.gov.uk/publications/result?view=GUIDELINES>

**Table 1** Peatland categories (derived from LCS88 map) used for the preparation of the Carbon and Peatland 2016 map (changes from consultation version shown in bold italic)

Peatland categories		Vegetation
code	description	description
A1	Not a peatland habitat	No peatland vegetation recorded in primary or secondary habitats
A2	Very unlikely to be peatland habitat	Some possible peatland vegetation types recorded as secondary habitats
B	Areas include vegetation types that may be defined as peatland habitat – drier	Some peatland vegetation type recorded as secondary habitats in association with drier <b>heathland</b> habitat types
C1	Areas include vegetation types that may be defined as peatland habitat – wetter	<b><i>Presence of vegetation associated with peatland habitats and other wetter habitat types</i></b>
C2	Peatland habitat with peatland vegetation as secondary type	The peatland vegetation is present in the area and is not a dominant type
D	Peatland habitats with peatland vegetation as primary type	The proportion of peatland vegetation in each area mapped may vary but peatland is the dominant vegetation.
E	Only peatland habitats	Areas unequivocally peatland

**Table 2** Recoding of individual LCS88 classes with peatland vegetation interests

New code	Peatland habitat types Description	LCS88 class range	
		from	to
1	Wetlands: with or without drains, scattered trees	200	203
2	Undifferentiated bracken: with or without rock outcrops, scattered trees	170	173
3	Smooth grasslands with low scrub: with or without rock outcrops, scattered trees	155	158
4	Dry heather moor: with or without rock outcrops, burning, scattered trees	110	117
5	Smooth grasslands with rushes: with or without rock outcrops, scattered trees	150	153
6	Undifferentiated heather moor: with or without rock outcrops, burning, scattered trees	130	137
7	Undifferentiated smooth grasslands: with or without rock outcrops, scattered trees	160	163
8	Undifferentiated coarse grasslands ( <i>Nardus/Molinia</i> ): with or without rock outcrops, scattered trees	140	143
9	Wet heather moor: with or without rock outcrops, burning, scattered trees	120	127
10	Blanket bog and other peatland vegetation	180	186
11	Recently ploughed land for afforestation / Land recently "ripped" for afforestation	83	83
		87	87
12	Undifferentiated montane vegetation: with or without erosion, rock outcrops	222	223
0	All other occurrences		



**Table 3** Revised LCS88 reclassification matrix of the primary & secondary vegetation types (changes are shown in bold italics)

		Primary vegetation												
		0	1	2	3	4	5	6	7	8	9	10	11	12
Secondary vegetation	0	0 <sup>(*)</sup>	A1	A1	A1	A1	C1	A1	A1	A1	C1	D	A1	A1
	1	A1	A1	A1	A1	A1	C1	A1	A1	C1		D		
	2	A1	A1	A1	A1	A1	C1	A1	A1	C1	C1	D		
	3	A1	A1	A1	A1	A1	C1	A1	A1	C1	C1	D		
	4	A1		A1	A1	A1 <sup>(*)</sup>	C1	A1	A1	C1	C1	D	A1	A1
	5	A2	<b>B</b>	A2	A2	A2	C1	A2	A2	C1	C1	D		
	6	A1		A1	A1	A1	<b>B</b>	A1*	A1	C1		D <sup>(*)</sup>	A1	A1
	7	A1	A1	A1	A1	A1	C1	A1	A1*	C1	C1	D	A1	A1
	8	A2		A1	A1	A1	<b>B</b>	A2 <sup>(*)</sup>	A2	C1 <sup>(*)</sup>	C1	D	A2	A2
	9	A2	A2	A2		A2	C1	A2	A2	C1	C1	D <sup>(*)</sup>	A2	
	10	C2	C2	C2	C2	C2	C2	C2 <sup>(*)</sup>	C2	C2	C2 <sup>(*)</sup>	E <sup>(*)</sup>	C2 <sup>(*)</sup>	C2 <sup>(*)</sup>
	11	A1		A1		A1		A1	A1	C1		D	A1 <sup>(*)</sup>	
	12	A1				A1		A1	A1	C1		D		A1 <sup>(*)</sup>

■ Combination not recorded

■ very rarely found (less than 10 occurrences out of 439700 records)

(\*) very common (>1% of total area)

**Table 4** Soil carbon category change in classification (old – consultation map; new – updated 2016 map)

Old Class	New Class	Description
0	-1	Unknown soil type – information to be update when new data are released
0	-2	Non-soil (i.e. loch, built up area, rock and scree)
0	0	Mineral soils Peatland habitats are not typically found on such soils.
1	1	All vegetation cover is priority peatland habitats All soils are carbon-rich soils and deep peat
2	2	The vegetation cover is dominated by priority peatland habitats All soils are carbon-rich soil and deep peat
3	3	Dominant vegetation cover is not priority peatland habitat but is associated with wet and acidic type. Occasional peatland habitats can be found Most soils are carbon-rich soils, with some areas of deep peat
4	4	Area unlikely to be associated with peatland habitats or wet and acidic type Area unlikely to include carbon-rich soils
X	5	Soil information takes precedence over vegetation data No peatland habitat recorded. May also show bare soil. All soils are carbon-rich soil and deep peat

**Table 6** Area of carbon-rich soil, deep peat and priority peatland habitat – identification key









Likelihood table of an area being of national importance for carbon-rich soil, deep peat and priority peatland habitat		Soil carbon categories							
		-1 Non soil	0 Unknown <sup>(a)</sup>	1	2	3	4	5	6
Peatland habitat category	0	-2	-1	0	0	4	4	5	5
	A1	-2	-1	0	0	4	4	5	5
	A2	-2	-1	0	0	4	4	5	5
	B	-2	-1	0	0	4	4	3	5
	C1	-2	-1	0	3	3	3	3	5
	C2	-2	3	0	3	2	2	2	1
	D	2 <sup>(c)</sup>	2	0 <sup>(b)</sup>	2	1	1	1	1
	E	1 <sup>(c)</sup>	1	0 <sup>(b)</sup>	1	1 <sup>(b)</sup>	1	1	1

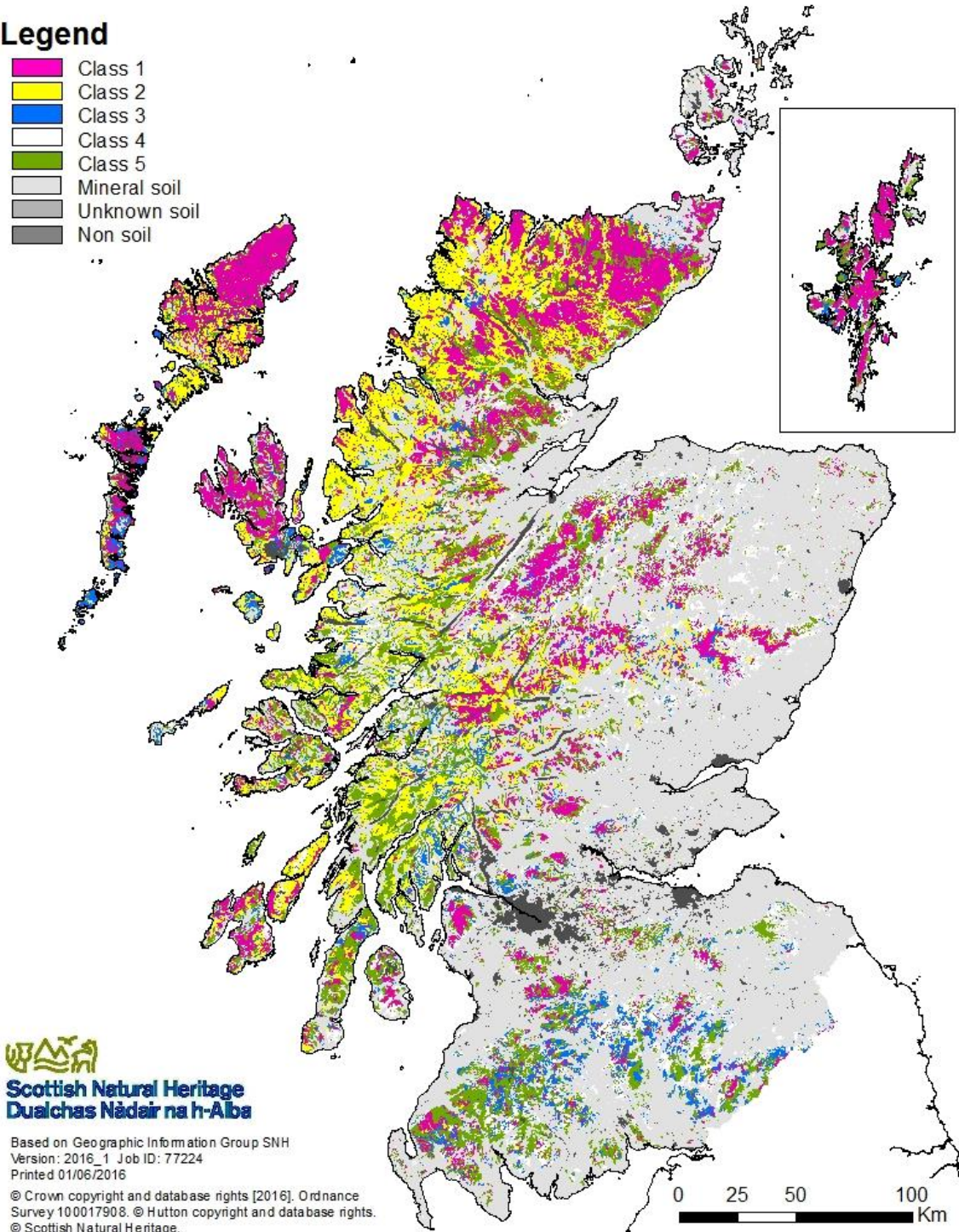
- (a) Non-soil or soil type unknown – a precautionary approach is used for the higher vegetation category until such time as new soil data become available.
- (b) Very unlikely combination in natural settings
- (c) Very unlikely combination – misalignment between soil and peat information, prevalence given to vegetation information.

# Carbon and Peatland 2016 map

This map is a consolidated spatial dataset of 'carbon rich soil, deep peat and priority peatland habitats' in Scotland derived from existing soil and vegetation data. The map is a predictive tool which provides an indication of the likely presence of peat, on each individually-mapped area, at a coarse scale.

## Legend

-  Class 1
-  Class 2
-  Class 3
-  Class 4
-  Class 5
-  Mineral soil
-  Unknown soil
-  Non soil



## Annex 1 – Responses to SNH Carbon-rich soils, deep peat and priority peatland habitats consultation (January - March 2015)

To access individual responses, please replace XXXXX in the text of this link with the reference provided in the table below or click on hyperlink (the initial letter is case-sensitive – it needs to be upper case).

<http://www.snh.gov.uk/docs/XXXXX.pdf>

<a href="#">CPP4 Dundee city Council - Carbon and Peatland map (2014) consultation</a>	ref: A1693711
<a href="#">CPP9 - Plantlife – Carbon and Peatland map (2014) Consultation</a>	ref: A1648286
<a href="#">CPP11 - Stirling Council- Carbon and Peatland map (2014) consultation</a>	ref: A1667133
<a href="#">CPP12 -SEPA- Carbon and Peatland map (2014) consultation</a>	ref: A1667132
<a href="#">CPP13 -SWT- Carbon and Peatland map (2014) consultation</a>	ref: A1667136
<a href="#">CPP14 -RWE Innogy UK Limited- Carbon and Peatland map (2014) consultation</a>	ref: A1667129
<a href="#">CPP15 -Dumfries &amp; Galloway Council- Carbon and Peatland map (2014) consultation</a>	ref: A1667138
<a href="#">CPP16 -E.ON Climate and Renewables- Carbon and Peatland map (2014) consultation</a>	ref: A1667128
<a href="#">CPP17 -John Muir Trust- Carbon and Peatland map (2014) consultation</a>	ref: A1667131
<a href="#">CPP18 -Individual- Carbon and Peatland map (2014) consultation</a>	ref: A1667135
<a href="#">CPP19 -Ardross Community Council - Carbon and Peatland map (2014) consultation</a>	ref: A1667140
<a href="#">CPP20 -Coriolis Ltd- Carbon and Peatland map (2014) consultation</a>	ref: A1667142
<a href="#">CPP21 -Highland Council- Carbon and Peatland map (2014) consultation</a>	ref: A1667127
<a href="#">CPP22 -South Lanarkshire Council- Carbon and Peatland map (2014) consultation</a>	ref: A1667130
<a href="#">CPP23 -Ecotricity- Carbon and Peatland map (2014) consultation</a>	ref: A1667134
<a href="#">CPP24 -The National Trust for Scotland- Carbon and Peatland map (2014) consultation</a>	ref: A1667139
<a href="#">CPP25 -Scottish National Park Authorities - Carbon and Peatland map (2014) consultation</a>	ref: A1681399
<a href="#">CPP26 -ScottishPower renewables- Carbon and Peatland map (2014) consultation</a>	ref: A1681402
<a href="#">CPP27 - Individual- Carbon and Peatland map (2014) consultation</a>	ref: A1681407
<a href="#">CPP28 - West Coast energy- Carbon and Peatland map (2014) consultation</a>	ref: A1681417
<a href="#">CPP29 -RES- Carbon and Peatland map (2014) consultation</a>	ref: A1681444
<a href="#">CPP30 -RSPB- Carbon and Peatland map (2014) consultation</a>	ref: A1681459
<a href="#">CPP31 -LINK- Carbon and Peatland map (2014) consultation</a>	ref: A1681453

<a href="#">CPP32 -Scottish Renewables- Carbon and Peatland map (2014) consultation</a>	ref: A1681473
<a href="#">CPP33 -Airvolution- Carbon and Peatland map (2014) consultation</a>	ref: A1681477
<a href="#">CPP34 -Peel energy- Carbon and Peatland map (2014) consultation</a>	ref: A1693287
<a href="#">CPP35 -EDF Energy- Carbon and Peatland map (2014) consultation</a>	ref: A1693289
<a href="#">CPP36 -Scottish Water- Carbon and Peatland map (2014) consultation</a>	ref: A1693292
<a href="#">CPP37 – The James Hutton Institute - Carbon and Peatland map (2014) consultation</a>	ref: A1693293
<a href="#">CPP38 - Shetland island Council- Carbon and Peatland map (2014) consultation</a>	ref: A1693294
<a href="#">CPP39 - South Lanarkshire Council- Carbon and Peatland map (2014) consultation</a>	ref: A1693295
<a href="#">CPP40 - South Ayrshire Council- Carbon and Peatland map (2014) consultation</a>	ref: A1693296
<a href="#">CPP41 - Perth &amp; Kinross Council - Carbon and Peatland map (2014) consultation</a>	ref: A1693298
<a href="#">CPP42 - SSE- Carbon and Peatland map (2014) consultation</a>	ref: A1693300
<a href="#">CPP43 - Comhairle nan Eilean Siar - Carbon and Peatland map (2014) consultation</a>	ref: A1693321