1. TECHNICAL ANNEX 7.1: PEAT SURVEY RESULTS

1.1 Introduction

Ramboll was commissioned by Scottish and Southern Electricity Networks Transmission (SSEN Transmission) operating under licence held by Scottish Hydro Electric Transmission plc (SHET), hereafter referred to as the 'Applicant' to undertake a peat depth survey to aid the design process and to inform an assessment of the nature and condition of the peatland for the Proposed Development.

This Technical Annex has been produced in accordance with guidance published by Scottish Environmental Protection Agency (SEPA), NatureScot (formerly Scottish Natural Heritage), and the Scottish Government, which is referenced in the following sections.

This Technical Annex (TA) is supported by the following:

- **Figure 7.3.3: Peat Depths ;**
- **Figure 7.3.6: Solid Geology** ;
- **Figure 7.3.7: Superficial Geology ;**
- **Annex 7.1.1: Peat Coring Data (of this TA);** and
- **Annex 7.1.2: .Core Sample Photographs (of this TA).**

Reference should also be made to the relevant peat baseline and assessment information contained within the adjacent Creag Dhubh Substation application[1] and data collated as part of the proposed Inveraray to Creag Dhubh 275 kV Overhead Line[2] (OHL) application.

1.2 The Site and Study Area

The Proposed Development is located in Argyll and Bute, Scotland. It encompasses a 740 m section of the existing 132 kV Inveraray to Taynuilt OHL, positioned approximately 2.5 km southwest of Cladich (**Figure 1.1, Volume 3a**). The Site is located within a large commercial conifer plantation part of which is in the process of being harvested. The surrounding land is a mix of regenerating moorland, conifers and a small number of large trees which have been retained. The majority of the Proposed Development lies in semi-mature commercial forestry plantation (approximately 20 years old) and the existing wayleave for the 132 kV Inveraray to Taynuilt OHL, which crosses modified heath.

There are no Statutory or Non-Statutory designated ecological sites within the Proposed Development Site. The nearest designated site is the Glen Etive and Glen Fyne Special Protection Area (SPA) which is approximately 1.3 km east of the Proposed Development. Further details on this SPA are located in **Chapter 4: Ecology and Ornithology (Volume 1).**

The Site location and setting are described in more detail within **Chapter 3: Proposed Development and Alternatives** (**Volume 1**). The peat Study Area, focussed on the developable area of the proposed OHL connection, but has also considered existing data and information gathered as part of the proposed Creag Dhubh Substation[1], as indicated by the distribution of sample probe locations in **Figure 7.3.3 .**

1.2.1 Desk Study

The 1:50,000 and 1:625,000 scale geological mapping available from the British Geological Survey (BGS)[3] shows the bedrock geology beneath the Site to comprise bedrock deposits composed of basic lavas, some pillowed, with epiclastic volcanics, comprising pebbly rocks with detrital epidote and lava fragments associated with the

[1] Creag Dhubh Substation -a new 132/ 275 kilovolt (kV) substation and associated infrastructure, located approximately 2.5 km southwest of Cladich, Argyll and Bute (planning reference: 22/00782/PP) https://publicaccess.argyll-bute.gov.uk/online-applications/simpleSearchResults.do?action=firstPage

[2] Inveraray to Creag Dhubh 275 kV OHL application – proposed new OHL that would operate at 275 kV between the proposed Creag Dhubh Substation, and a connection point on the in-construction Inveraray to Crossaig OHL

[3] British Geological Survey Online Viewer (2022) https://mapapps.bgs.ac.uk/geologyofbritain/home.html [Accessed September 2022]

Tayvallich Volcanic Formation, and Metalava and Metatuff from the Argyll Formation. This is shown on **Figure 7.3.6.**

The BGS mapping shows the superficial geology of the Site to be underlain by hummocky (moundy) glacial till superficial deposits described as 'lithologically diverse and complex glacial deposits that have characteristic moundy topographic form. Composed of rock debris, clayey till and poorly to well stratified sand and gravel'. BGS mapping shows no peat deposits are located at the Site. This is shown on **Figure 7.3.7.**

The National Soil Map of Scotland[4] including carbon-rich soils, deep peat and priority peatland habitat mapping shows the Site to be underlain by peaty gleys, and defined as 'Class 5' peat soil. Class 5 soils are not nationally significant but are defined as being 'carbon rich soils and deep peat with no peatland habitat'.

1.2.2 Field Survey

Peat depth surveys were undertaken at the Site in April 2022 to understand the baseline peat conditions and potential constraints, and to inform the design of the Proposed Development and Outline Peat Management Plan (OPMP) (**TA 7.2, Volume 2**) so as to minimise, as far as practicable, the potential direct and indirect effect on peat and carbon rich soils. This comprised a targeted survey based on the proposed infrastructure location with additional survey points to allow for micrositing and understanding of the peat depths within the Proposed Development Site.

In addition to the peat probing of the Proposed Development, peat depth data obtained as part of the proposed Creag Dhubh Substation, the Creag Dhubh to Dalmally 275 kV OHL Connection, and the Creag Dhubh to Inveraray 275 kV OHL projects has also been used to provide context of the surrounding area. These surveys were also undertaken by Ramboll and are summarised below:

- Creag Dhubh Substation and Creag Dhubh to Dalmally 275 kV OHL Connection Phase 1 – March 2021 – a coarse, low resolution survey;
- Creag Dhubh Substation and Creag Dhubh to Dalmally 275 kV OHL Connection Phase 2 – August 2021 – a coarse, low resolution survey;
- Creag Dhubh Substation and Creag Dhubh to Dalmally 275 kV OHL Connection Phase 3 – November 2021 – a refined, high resolution survey; and
- Creag Dhubh to Inveraray 275 kV OHL Phase 1 – April 2022 – a coarse, low resolution survey.

Surveys followed best practice guidance published at the time of the surveys with regard to surveying for developments on peatland[5,6].

1.2.3 Peat Probing

The survey covering the Proposed Development comprised a high-density survey through the developable area of the Site. The probing was carried out using collapsible avalanche probes, allowing for probing in excess of 6 m. However, such depths were not reached. This peat depth data along with other environmental and engineering constraints were used to inform the layout of the Proposed Development.

The survey points and field data were collected using a handheld Trimble GPS unit. Peat depth data was modelled using Inversive Distance Weighted (IDW) interpolation in GIS software, and a depth model generated using incremented peat depth categories.

The Creag Dhubh Substation, Creag Dhubh to Dalmally 275 kV OHL Phase 1 and Phase 2, and Creag Dhubh to Inveraray 275 kV OHL Phase 1 surveys were preliminary, low density surveys, carried out on a 50 m grid across

[4] Scottish Natural Heritage. (2016).*Carbon and Peatland 2016 map* (http://map.environment.gov.scot/soil_maps/) [Accessed November 2021].
[5] Scottish Government, Scottish Natural Heritage, SEPA. (2017). *Peatland Survey. Guidance on Developments on Peatland*, online version only.
[6] Scottish Renewables and SEPA (2012*). Development on Peatlands. Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste.*

the developable area of the Creag Dhubh Substation Site, with additional points taken as necessary and subject to access constraints, including the substation platform and access tracks.

The high-density probing during the Phase 3 survey was carried on the confirmed layout of the Creag Dhubh Substation Site. This included a 50 m buffer zone where possible to allow for micrositing.

No peat cores were taken as part of the peat survey for the Proposed Development as it has been assumed that peat information derived as part of the previous surveys is representative based on their close proximity and similar topography and morphology. This comprised information obtained from peat cores taken using a Russian auger, with a sample volume of 0.5 l, and field tests and observations were undertaken. The probing results are included in **Annex 7.1.1** of this TA, and records taken include:

- depth of acrotelm;
- degree of humification (using Hodgson, 1974), to establish amorphous, intermediate, fibrous and content;
- degree of humification using the Von Post classification;
- fine fibre content, based on scale of F0 (none) to F3 (very high);
- coarse fibre content, based on scale of R0 (none) to R3 (very high);
- water content, based on scale of B1 (dry) to B5 (very wet); and
- substrate underlying the peat where this was possible.

Peat cores taken were photographed and included in **Annex 7.1.2** of this TA.

Samples of known volume were taken for laboratory analysis. During laboratory analysis, the samples were weighed, dried, and a subsample taken for loss on ignition testing. The total moisture content was determined from weight measurements. Peat pH was also determined.

1.3 Limitations

The design of the Proposed Development has considered the presence and depth of peat, along with other technical and environmental constraints. The siting of the Proposed Development is defined by the location of the existing OHL and the position of the proposed Creag Dhubh substation, measures have been undertaken to avoid areas of deep peat, where possible and also utilising existing tracks and construction methods to minimise disturbance of peat. Where this is not possible micrositing will be undertaken locally.

Peat probing and mapping has been used to inform the design process, at strategic points in the design evolution of the Proposed Development. However, there are some differences between the final design and the extent of the peat survey results based on design changes made through this process, as a result of micrositing etc. Limited peat survey information was undertaken for the proposed permanent stone access tracks as these were not part of the design when the survey was undertaken.

The peat survey probing points provide high resolution coverage of the developable area of the Site, and these revealed the peatland to be typically shallow (less than 1.0 m) but with some pockets of deeper peat. It is considered that the peat depths collected, and interpolations derived from these data, are representative of the Site and have adequately informed the layout of the Proposed Development.

Peat cores undertaken as part of the Creag Dhubh Substation project have been used for the purpose of this assessment and are considered to be representative of peat baseline conditions.

1.4 Results

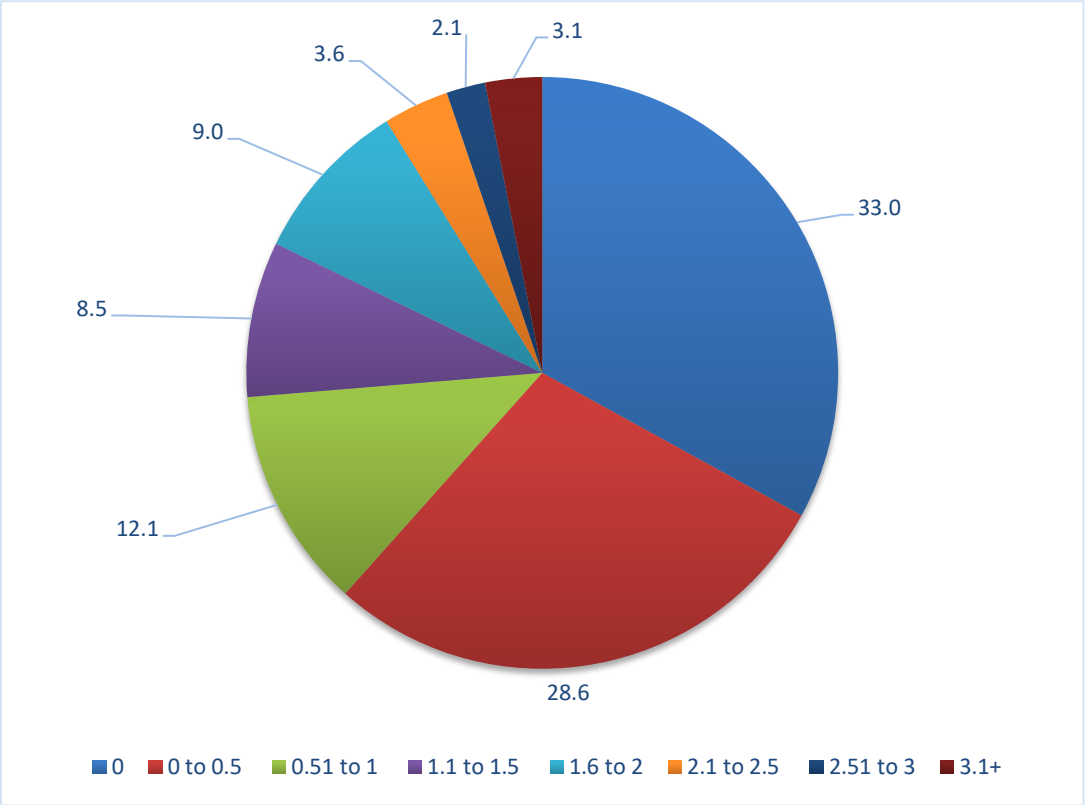
1.4.1 Peat Probing

During the peat depth probing survey of the Proposed Development, a total of 165 peat depth probes were taken. When combined with the peat depth probes taken as part of the Creag Dhubh Substation and Creag Dhubh to Inveraray 275 kV OHL Phase 1 surveys that cover the Proposed Development and Study Area, a total of 612 were taken. These are shown in **Figure 7.3.3.**

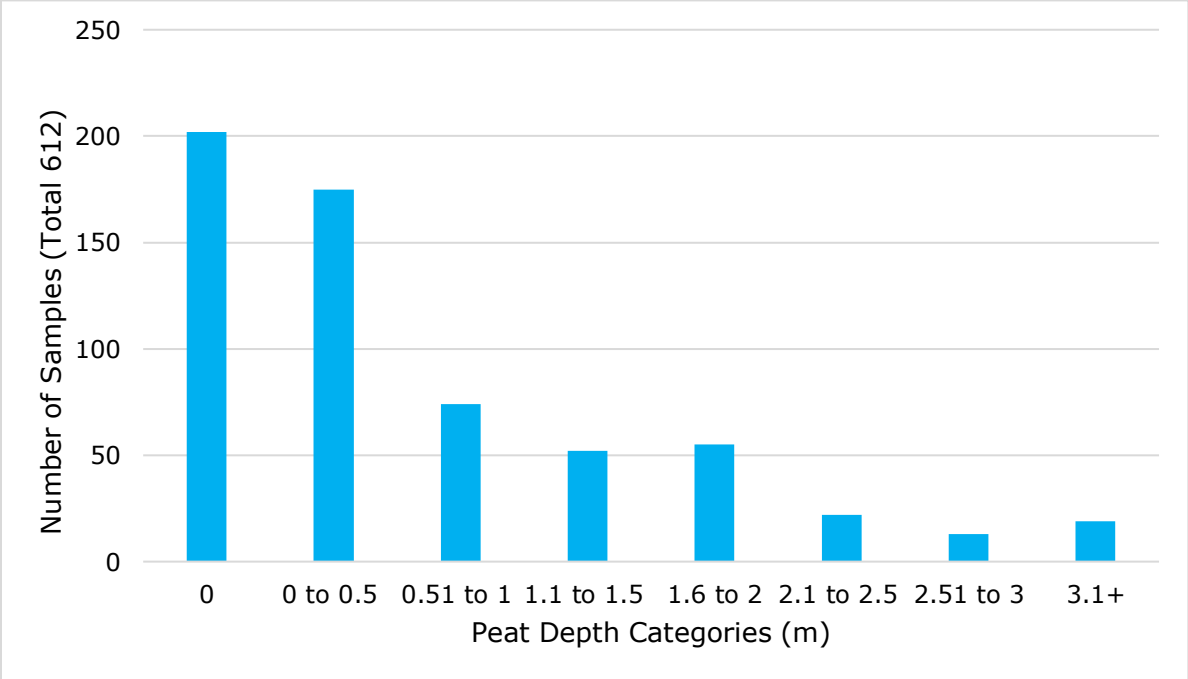
Figure 7.3.3 shows the results of the peat depth survey at the Proposed Development, as well as the specific depth class at each sample location. **Figure 7.3.3** is based on Inversive Distance Weighted (IDW) data interpolation and consequently the peat depth contours and boundaries are to a degree indicative.

Graph 7.1.1 and **Graph 7.1.2** below present the percentage and frequency of peat probe results within the specific peat depth categories recorded during the peat depth probe surveys.

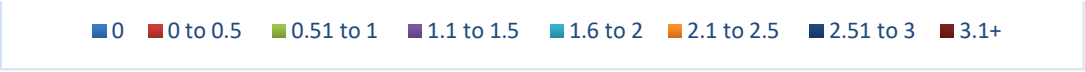
Graph 7.1.1: Percentage Peat Depth Categories (m) (All Surveys Combined[7])



Graph 7.1.2: Peat Depth Frequency Distribution (All Surveys Combined)



As shown on



[7] This provides a more comprehensive overview of the peat survey data,

Graph 7.1.2, the surveyed area (covering the Proposed Development and adjacent areas) has either no peat present or has a shallow depth of peat present (approximately 61.6 % were <0.5 m in depth). These areas of shallow peat can be considered as organo-mineral soils. These are further summarised as follows:

- 202 no. samples (33 %) located on land with no peat/ absent;
- 175 no. samples (28.6 %) located on land with less than or equal to 50 cm depth of peat or organo-mineral soil;
- 74 no. samples (12.1 %) fell on land with between 51 cm and 100 cm depth of peat; and
- 161 no. samples (26.3 %) located on land with more than 100 cm depth of peat.

The survey results indicate that the peat depth is variable ranging between 0.0 m and 4.2 m thickness. Within the Proposed Development area the peat thickness was generally found to be between 0.0 m and 1.0 m thick in the western half, with some isolated pockets of peat extending to 2.0 m in thickness located to the north of P4. The deepest peat depth recorded within the Study Area was 4.2m thickness, located to the south of the proposed Creag Dhubh Substation. The probe depth and interpolated contours are shown on **Figure 7.3.3**. The mean peat depth recorded across all the survey data was 0.71 m.

1.4.2 Core Sample Results

Depth of Acrotelm

Based on the results shown in **Annex 7.1.1**, no discernible acrotelm was recorded at the sample locations. In the context of any development, it is recommended that for the purposes of construction and subsequent reinstatement, that where a sufficient peat depth exists, the top 50 cm of material should be treated as acrotelm. This approach will allow excavation of intact turves for reinstatement purposes where they are present, which will in turn facilitate quicker regeneration of disturbed areas. Even if little vegetation is present within this top layer, it should still be treated as acrotelmic material as it may contain a seedbank, particularly in open habitats, which will aid re-vegetation of reinstatement areas. The acrotelm and catotelm represent two distinct layers within undisturbed peat that control the hydrological regime.

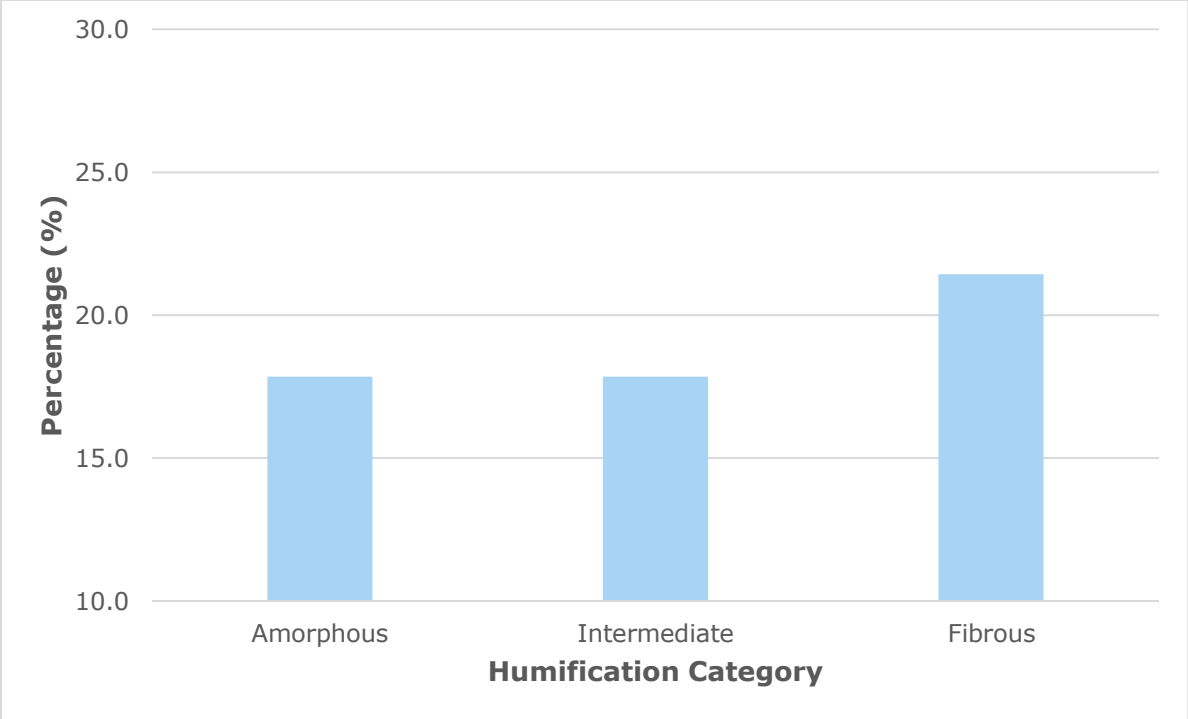
Degree of Humification

The degree of humification[8] was recorded in the field, in accordance with the methods discussed in the methodology section, with each 0.5 m sub-sample being categorised as either fibrous, intermediate, or amorphous peat.

Graph 7.1.3 summarises the degree of humification, which indicates that there were slightly more samples classed as being fibrous in nature. This is suggestive that there is a low degree of humification present in these samples. Slightly lower numbers of samples were classed as amorphous/intermediate in nature.

[8] Humification is a process that occurs in soils and peats, where organic material decomposes and breaks down. It is a process of formation of humic substances (organic matter that has reached maturity) decomposed from plant remains.

Graph 7.1.3: Degree of Humification

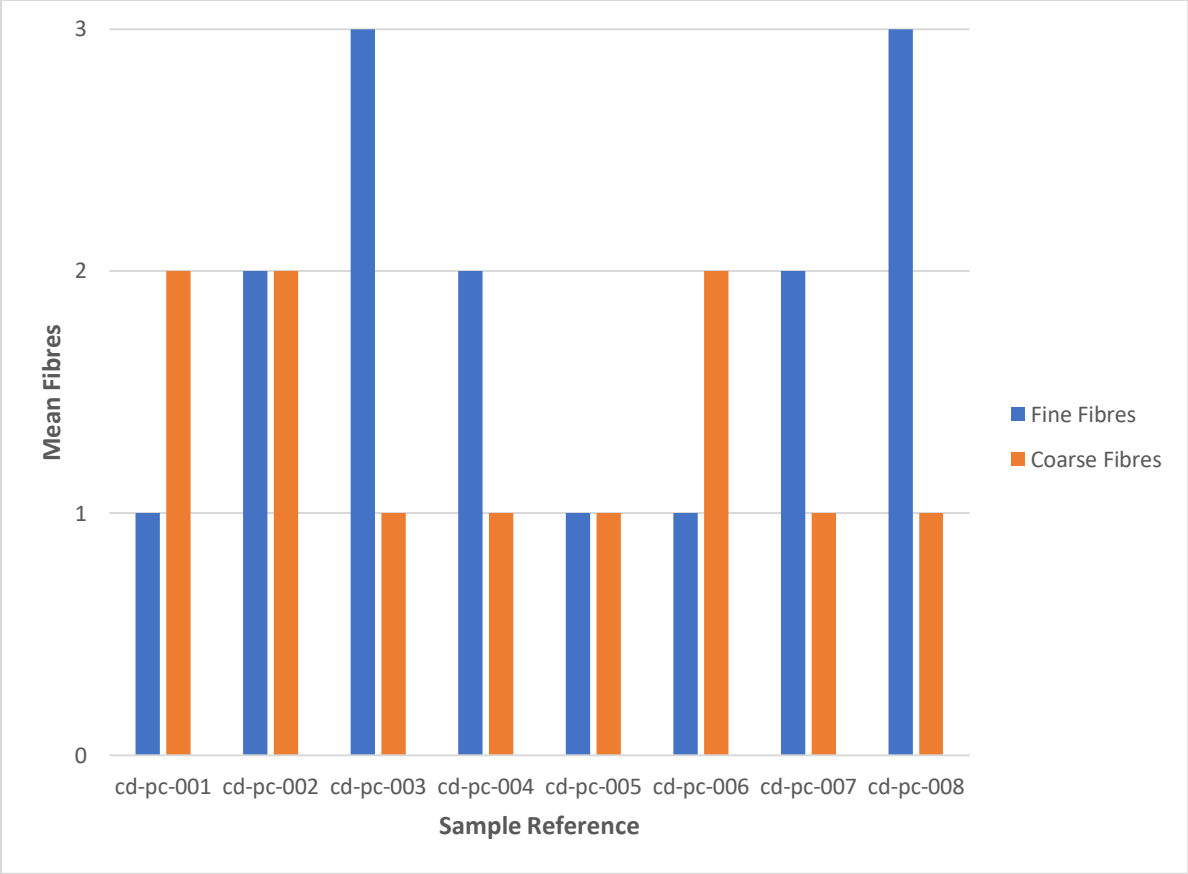


Fibrous Content

The fibrous content was recorded in the field, in accordance with the methods discussed in the methodology section, with each 0.5 m sub-sample being categorised for coarse and fine fibre content. The proportions of coarse and fine fibres within the peat samples were derived in the field according to the Hobbs scale, where F0/R0 indicate no fine/coarse fibre content to F3/R3 which are indicative of high fine/coarse fibre respectively. This indicates that the majority of the samples were assessed as having low to moderate fine fibre content (F1 and F2), with three samples each being recorded as having low or moderate fine fibre content.

The majority of the sample locations were assessed as having a low coarse fibre content (R1), with three locations having a moderate coarse fibre content (R2). No samples were assessed as having a high coarse fibre content (R3). These results are summarised in **Graph 7.1.4.**

Graph 7.1.4: Fibrous Content

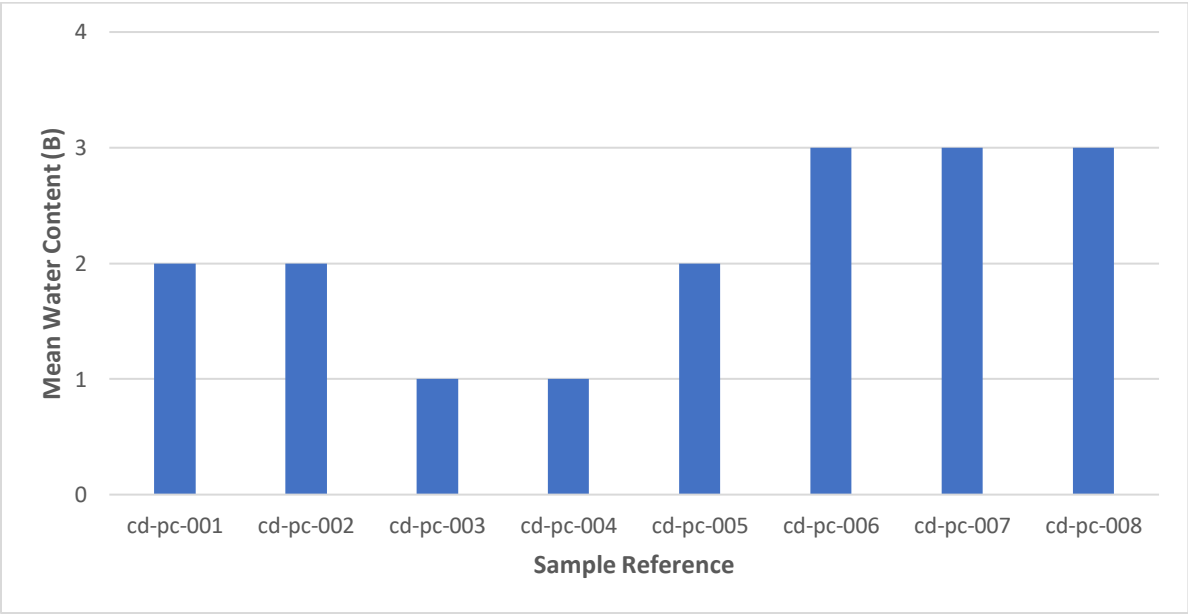


Water Content

The water content of the samples was determined in the field using the Hobbs scale, where B1 is dry and B5 is very wet. The results are summarised in **Graph 7.1.5**.

The results indicate that most of the of the samples recorded are indicative of dry peat (B1) or semi-dry peat (B2), with three of the samples recorded as wet (B3). No samples were recorded as very wet (B4 to B5).

Graph 7.1.5: Water Content



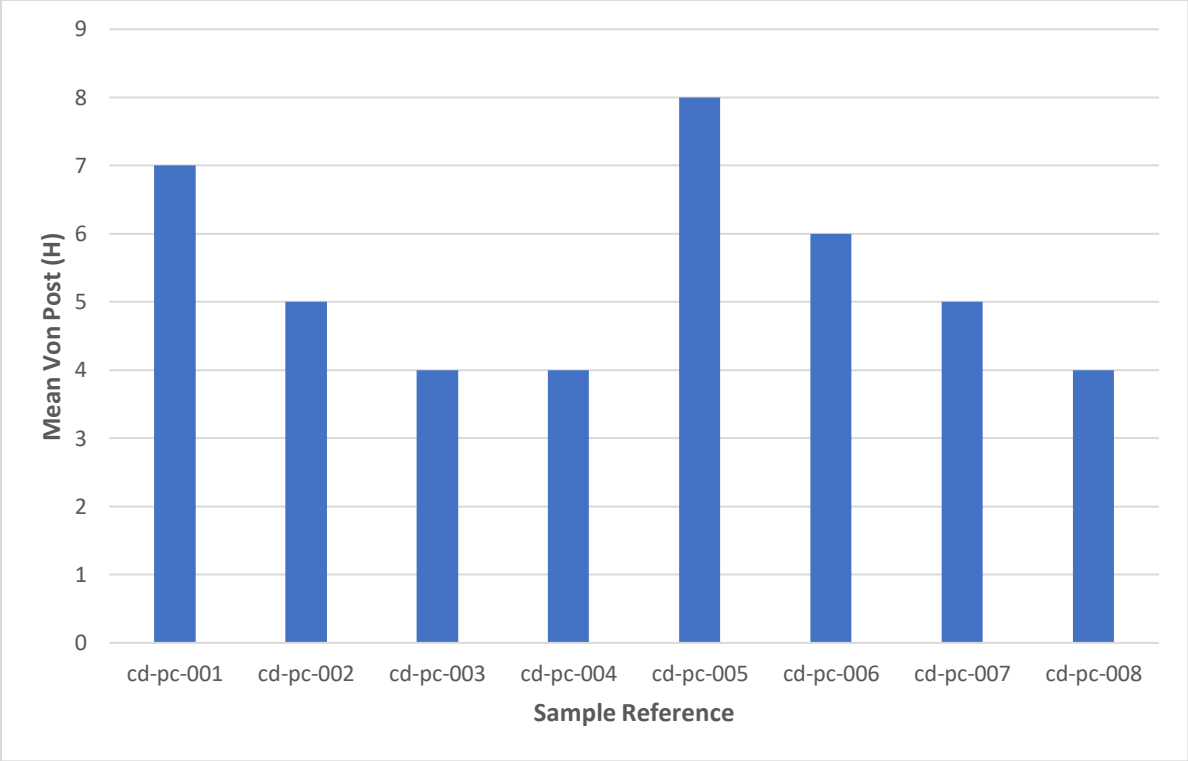
Von Post (Degree of Humification)

An estimate of the degree of humification according to the Von Post scale was carried out on samples at all core locations. The results are shown in **Graph 7.1.6** below, where the vertical axis refers to the Von Post scale of peat decomposition (on a scale of H1 to H10). The criteria associated with the Von Post scale as shown in **Table 7.1.1**.

Table 7.1.1: Von Post Scale of Humification

Von Post Scale	Von Post Description	Plant Residues	Peat Extruded in Field Test	Colour of Squeezed Water
H1	Undecomposed	Fibrous, elastic. Plant structure unaltered	None	Clear, colourless
H2	Almost undecomposed	Plant structure distinct, almost unaltered	None	Almost clear, yellow brown
H3	Very weakly decomposed	Plant structure distinct, most remains easily identifiable	None	Slightly turbid, brown
H4	Weakly decomposed	Plant structure distinct, most remains identifiable	None	Strongly turbid, brown
H5	Moderately decomposed	Plant structure clear but indistinct and difficult to identify	Very little	Strongly turbid, contains a little peat in suspension
H6	Well decomposed	Plant structure indistinct but clearer in residue, most remains undefinable	One third	Muddy, much peat in suspension
H7	Strongly decomposed	Plant structure indistinct	One half	Strongly muddy
H8	Very strongly decomposed	Plant structure very indistinct – only resistant material such as roots	Two thirds	Thick mud, little free water
H9	Almost completely decomposed	Plant structure almost unrecognisable	Nearly all	No free water
H10	Completely decomposed	Plant structure not recognisable, amorphous	All	No free water

Graph 7.1.6: Mean Von Post

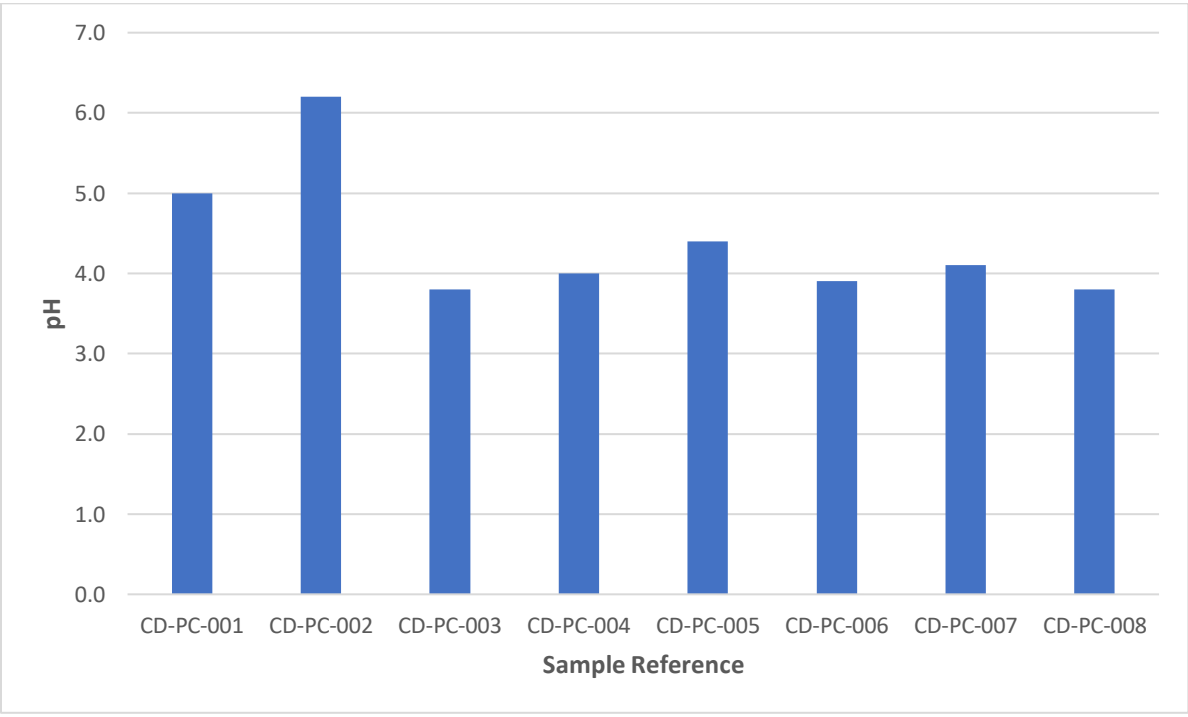


The results indicate that most of the samples were found to be scored relatively high on the Von Post scale (>H4). Three of the samples were recorded as H4, indicating weakly decomposed peat, with the other samples indicative of moderately to stronger rates of decomposition.

pH of Samples

The pH values of the core samples were analysed in a laboratory, and the results provided in **Graph 7.1.7** below.

Graph 7.1.7: Mean pH

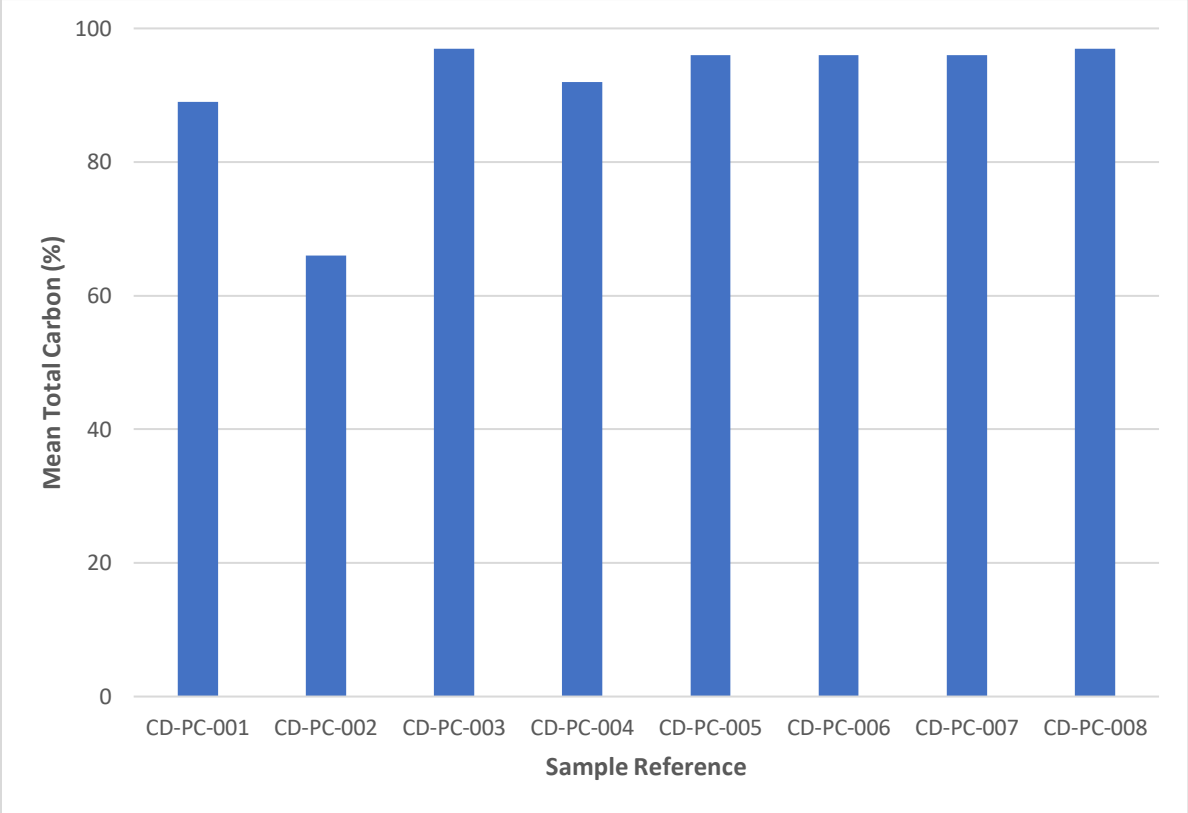


The mean pH value was 4.4, with a range between 3.8 and 6.2, which indicates that all samples are acidic in nature. One result was found to have a slightly higher pH level (6.2) but is still acidic. This result is typical of peat and carbon rich soils.

Total Carbon (%)

The total carbon context was derived by laboratory analysis for each sample and is summarised in **Graph 7.1.8.** This indicates a consistent high carbon content with a mean of 91.1%. One sample recorded a slightly lower carbon content of 66 %.

Graph 7.1.8: Total Carbon (%)



Underlying Substrates

At each location, where possible, a broad characterisation was made of the underlying substrate below the peat horizon. The underlying substrate at each sample location was found to be cohesive.

The underlying substrate located within the Proposed Development area was found to be mostly rock, with some areas of cohesive and granular substrates.

1.5 Summary

The peat Study Area, comprising a wider area encompassing the Proposed Development and adjacent Creag Dhubh Substation Site and Creag Dhubh to Inveraray 275 kV OHL is indicated by the distribution of sample probe locations in **Figure 7.3.3**. The results of the peat surveys undertaken between 2021 and 2022 are summarised as follows:

- Overall, the peat depth within the developable area is relatively shallow (<0.5 m) with some isolated deeper pockets of peat are present (>1.0 m). These were located in the area to the north of P4 up to 2.5 m thickness, with the deepest area located to the south of the proposed Creag Dhubh Substation Site, where peat depths were noted to be up to 4.2 m thickness. The mean peat depth was 0.71 m. These are shown on **Figure 7.3.3.**
- The Proposed Development is defined by the location of the existing OHL and the position of the proposed Creag Dhubh substation. Measures have been undertaken to avoid areas of deep peat (where practicable)

and also utilising existing tracks and construction methods to minimise disturbance of peat, and where this is not possible micrositing will be undertaken locally.;

- No acrotelmic peat was recorded at the sample locations but was noted to be present elsewhere, although it has been assumed for the purpose of assessment that the depth of acrotelm is 50 cm;
- The peat across the surveyed area was generally found to be slightly more fibrous in nature, with other samples being both amorphous and intermediate;
- The majority of the samples were assessed as having low to moderate fine fibre content (F1 and F2), with three samples each being recorded as having low or moderate fine fibre content;
- The majority of the sample locations were assessed as having a low coarse fibre content (R1), with three locations having a moderate coarse fibre content (R2). No samples were assessed as having a high coarse fibre content (R3);
- The results indicate that most of the samples were found to be scored relatively high on the Von Post scale (>H4). Three of the samples were recorded as H4, indicating weakly decomposed peat, with the other samples indicative of moderate to stronger rates of decomposition;
- The mean water content of the peat at the majority of the sample locations was dry and semi-dry, which is consistent with potentially higher degree of modification to the peatland integrity and composition through artificial drainage and overplanting with coniferous plantation forest. The drainage of the Proposed Development area for the purposes of plantation forestry has caused drying, oxidation, and erosion of peat and carbon-rich soils, which have likely increased carbon release. Some of the samples were recorded as wet (B3). No samples were recorded as very wet (B4 or B5);
- The mean pH value was 4.4, with a range between 3.8 and 6.2, which indicates that all samples are acidic in nature. One result was found to have a slightly higher pH level (6.2) but is still acidic. This result is typical of peat and carbon rich soils; and
- Laboratory analysis of samples indicates that the peat has a high total carbon content.

Figures

Figure 7.3.3: Peat Depths
Figure 7.3.6: Solid Geology
Figure 7.3.7: Superficial Geology

08

09

Scottish & Southern Electricity Networks
TRANSMISSION

T2A
T1A
37
P8
P7
P6
P5
36A
36B
35B
P4
P3
35A
P2
P1
34
212m
212m
Aodann

19

19

Scale @ A3: 1:4,000
0 0.025 0.05 0.1 0.15 0.2 0.25 km

08

09

Legend

Proposed Development

- Proposed Tie-In
- Proposed Tie-In - Gantries
- Proposed Terminal Towers
- New Angle Towers to Replace Existing Online Towers
- Proposed Temporary Diversion Route
- Proposed Temporary Diversion Poles
- Access Tracks - Existing Upgrade
- Access Tracks - New Stone Permanent
- Turning Head
- Peat Study Area

Existing Inveraray to Taynuilt OHL

- Existing Connection
- Section of Existing OHL to be Removed
- Existing Towers

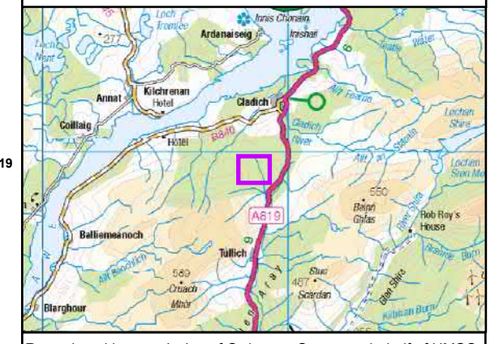
Wider Argyll and Kintyre 275 kV Strategy

- Proposed Creag Dhubh to Dalmally 275kV Connection Towers
- Proposed Creag Dhubh to Dalmally 275kV Connection
- Proposed Creag Dhubh Substation

*Peat data outwith the Study Area is shown to provide a greater understanding of the nature of peat in the wider area.

Peat Depth (m)

Sample Location*	Interpolated
No Peat	No Peat
0.01 - 0.50	0.00 - 0.50
0.51 - 1.00	0.50 - 1.00
1.01 - 1.50	1.00 - 1.50
1.51 - 2.00	1.50 - 2.00
2.01 - 2.50	2.00 - 2.50
2.51 - 3.00	2.50 - 3.00
3.01 - 3.50	3.00 - 3.50
3.51 - 4.00	3.50 - 4.00
4.01 - 4.20	4.00 - 4.30



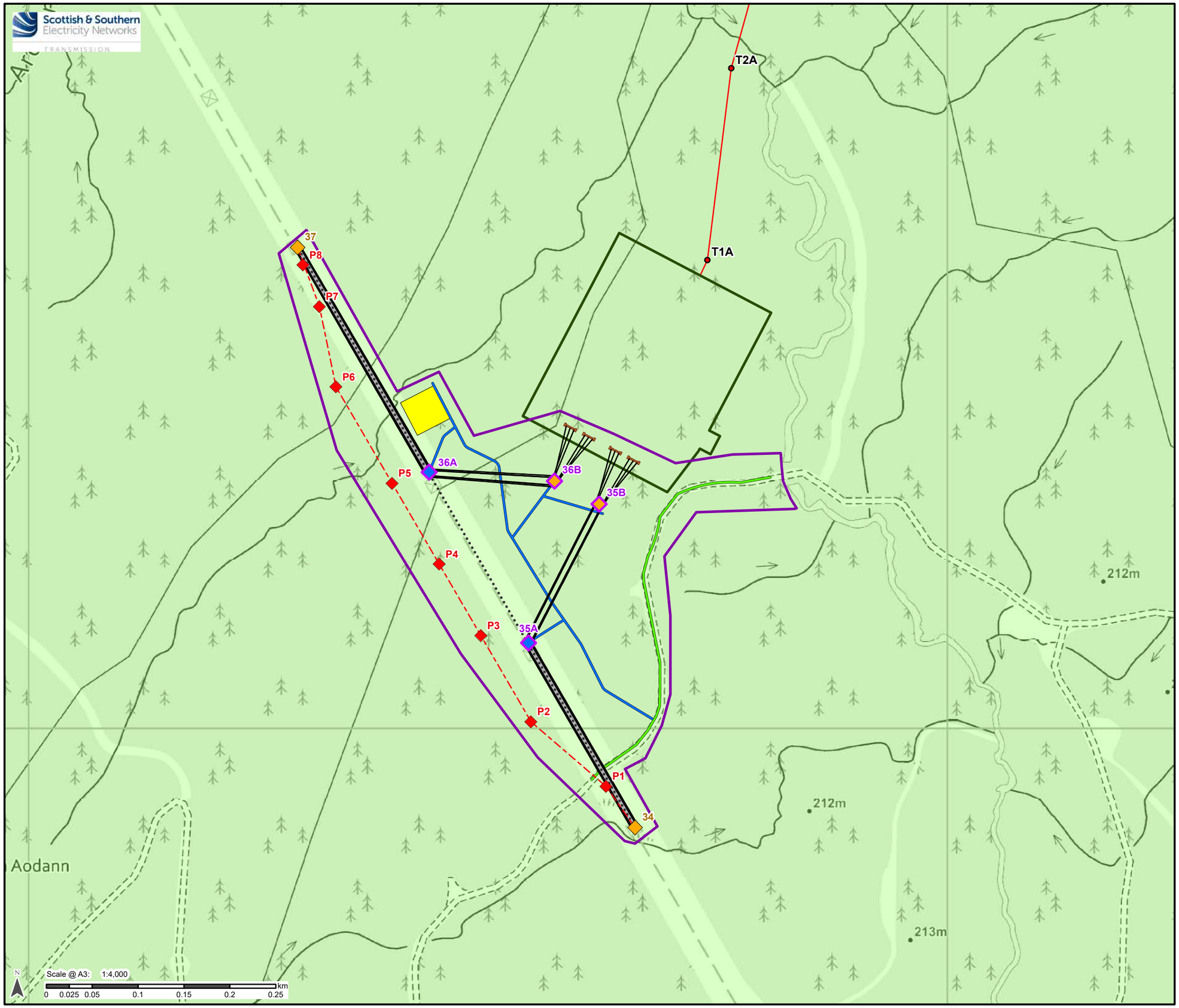
Project No: LT000029
Project: 1700003673

Title:
Inveraray – Taynuilt Tie-In to Creag Dhubh Substation

Figure 7.3.3: Peat Landslide Hazard and Risk Assessment: Peat Depth

Drawn by: AB Date: 10/02/2023

Drawing: R170_3673_ITEITW_Fig7.3.3_PeatDepth_B



Legend

Proposed Development

- Proposed Tie-In
- Proposed Tie-In - Gantries
- Proposed Terminal Towers
- New Angle Towers to Replace Existing Online Towers
- Proposed Temporary Diversion Route
- Proposed Temporary Diversion Poles
- Access Tracks - Existing Upgrade
- Access Tracks - New Stone Permanent
- Turning Head
- Peat Study Area

Existing Inveraray to Taynuilt OHL

- Existing Connection
- Section of Existing OHL to be Removed
- Existing Towers

Wider Argyll and Kintyre 275 kV Strategy

- Proposed Creag Dhubh to Dalmally 275kV Connection Towers
- Proposed Creag Dhubh to Dalmally 275kV Connection
- Proposed Creag Dhubh Substation

BGS Bedrock Geology 50k

- Tayvallich Volcanic Formation - Metalava and Metatuff

Project No: LT000029

Project: 1700003673

Title:

Inveraray – Taynuilt Tie-In to Creag Dhubh Substation

Figure 7.3.6: Peat Landslide Hazard and Risk Assessment: Bedrock Geology

Drawn by: AB Date: 10/02/2023

Drawing: R170_3673_ITEITW_Fig7.3.6_BedrockGeology_B

08 09

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TRANSMISSION

T2A
T1A
37
P8
P7
P6
P5
P4
P3
P2
P1
36A
36B
35B
35A
34
212m
212m
213m
Aodann
19
19

N
Scale @ A3: 1:4,000
0 0.025 0.05 0.1 0.15 0.2 0.25 km

08 09

Legend

Proposed Development

- Proposed Tie-In
- Proposed Tie-In - Gantries
- Proposed Terminal Towers
- New Angle Towers to Replace Existing Online Towers
- Proposed Temporary Diversion Route
- Proposed Temporary Diversion Poles
- Access Tracks - Existing Upgrade
- Access Tracks - New Stone Permanent
- Turning Head
- Peat Study Area

Existing Inveraray to Taynuilt OHL

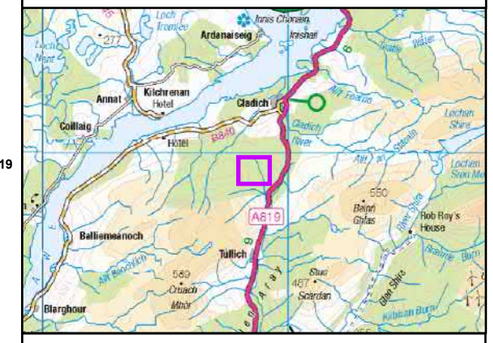
- Existing Connection
- Section of Existing OHL to be Removed
- Existing Towers

Wider Argyll and Kintyre 275 kV Strategy

- Proposed Creag Dhubh to Dalmally 275kV Connection Towers
- Proposed Creag Dhubh to Dalmally 275kV Connection
- Proposed Creag Dhubh Substation

Superficial Geology (BGS 625k)

- Till



Project No: LT000029
Project: 1700003673

Title:
Inveraray – Taynuilt Tie-In to Creag Dhubh Substation

Figure 7.3.7: Peat Landslide Hazard and Risk Assessment: Superficial Geology

Drawn by: AB Date: 10/02/2023

Drawing: R170_3673_ITEITW_Fig7.3.7_SuperficialGeology_B

ANNEX 7.1.1 – PEAT CORING DATA

Sample ID	CD-PC-01	CD-PC-02	CD-PC-03	CD-PC-04	CD-PC-05	CD-PC-06	CD-PC-07	CD-PC-08
Infrastructure	Substation	Substation	Substation	Substation	Substation	Substation	Substation	Substation
Planted/ Unplanted	Planted	Planted	Planted	Planted	Planted	Planted	Planted	Planted
Probed Depth	2.30m	2.30m	2.30m	2.30m	2.00m	2.00m	2.00m	2.00m
Cored Depth	2.00m	1.50m	1.00m	0.50m	2.00m	1.50m	1.00m	0.50m
Depth of Acrotelm	0.00m	0.00m	0.00m	0.00m	0.00m	0.00m	0.00m	0.00m
Colour	Black Brown	Dark Brown	Brown	Light Brown	Red Brown	Mid Brown	Mid Brown	Black Brown
Depth of Sub Sample	2.00m	1.50m	1.00m	0.50m	2.00m	1.50m	1.00m	0.50m
Amorphous (0=No/1=Yes)	1	0	0	0	1	1	0	0
Fibrous (0=No/1=Yes)	0	0	1	1	0	0	0	1
Intermediate (0=No/1=Yes)	1	1	0	0	0	0	1	0
Fine Fibres (F)	1	2	3	2	1	1	2	3
Coarse Fibres (R)	2	2	1	1	1	2	1	1
Water Content (B)	2	2	1	1	2	3	3	3
Von Post Scale (H)	7	5	4	4	8	6	5	4
% Moisture	89	90	89	86	87	89	90	87
pH	5.0	6.2	3.8	4.0	4.4	3.9	4.1	3.8
Total Carbon (%)	89	66	97	92	96	96	96	97
Substrate	Cohesive	Cohesive	Cohesive	Cohesive	Cohesive	Cohesive	Cohesive	Cohesive

ANNEX 7.1.2 – CORE SAMPLE PHOTOGRAPHS

CD-PC-01 – Core Sample 1.5-2.0m

CD-PC-02 – Core Sample 1.0-1.5m

CD-PC-04 – Core Sample 0.0-0.5m

CD-PC-03 – Core Sample 0.5-1.0m

CD-PC-05 – Core Sample 1.5-2.0m

CD-PC-06 – Core Sample 1.0-1.5m

CD-PC-07 – Core Sample 0.5-1.0m

CD-PC-08 – Core Sample 0.0-0.5m