Technical Appendix 9.2: Peat Management Plan

Clune Wind Farm

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SLR Project No.: 405.064807.00001

26 September 2024

Revision: 0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
0	26 September 2024	R. Watson	A. Huntridge	A Huntridge

Basis of Report

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1.0 Introduction

1.1 General

SLR Consulting Ltd (SLR) was commissioned by Renewable Energy Systems Ltd (RES) to undertake a Stage 1 Peat Management Plan (PMP) at the proposed Clune Wind Farm ('the Proposed Development'). The location of the Proposed Development is provided in **Figure 9.2.1** with the layout detailed on **Figure 9.2.2**.

The assessment has been undertaken in line with best practice guidance[1] published by the Scottish Environment Protection Agency (SEPA) and wind farm construction good practice guidance.

The work has been undertaken by a team of Geotechnical Engineers and Geologists, with over 17 years' experience in undertaking peat assessments and specialising in the assessment of soils, geology and water for renewable power and infrastructure projects in Scotland.

1.2 Proposed Development

The Proposed Development is located approximately 27km south-east of Inverness, and approximately 5.5km south of the village of Tomatin. The Proposed Development is predominately managed upland grouse moorland with agricultural fields and mixed woodland in lower altitude areas. Clune Burn and Allt Lathach traverse the Proposed Development along with other smaller tributaries running into the River Findhorn that lies to the north-west.

The Proposed Development inclines generally in a north-east to south-west direction, reaching the highest point, 750m, at Carn Dubh'Ic an Deoir. The northern edge is bounded by the River Findhorn and the eastern boundary by the A9. The Proposed Development can be approximately divided by four main watercourses that flow north into the River Findhorn: Allt Phris, Clune Burn, Allt Lathach, and Wester Strathnoon Burn.

The Proposed Development is mainly used as a grouse moor and managed by grazing livestock such as sheep. The Proposed Development also consists of small patches of grassland along the northern boundary used by grazing livestock, a block of conifer plantation in the north-east, and an area of ancient deciduous woodland on the banks of the Allt Phris. The proposed access track will be situated on the north-eastern boundary of the Proposed Development, connecting to the A9 just north of Slochd summit, using an existing minor junction.

1.3 Objectives

This Peat Management Plan (PMP) outlines the overall approach of minimising disruption to peatland, and it aims to ensure that all further opportunities to minimise peat disturbance and extraction would be taken during detailed design and construction of the development.

The PMP has been developed to demonstrate that peat has been afforded significant consideration during the routeing, alignment, design and construction phase of the Proposed Development, should consent be granted. Specifically, it shows with the benefit of site-specific peat probing data, how areas of deeper peat have been avoided where technically feasible and how shallow deposits of peat and soils can be safeguarded and used to support the long-term habitat restoration and management proposals detailed in **Chapter 7**

[1] Scottish Government, Scottish Natural Heritage, SEPA., (2017) Peatland Survey. Guidance on Developments on Peatland, on-line version only. Accessed 20/09/2024

Technical Appendix 7.5: Outline Habitat Management and Biodiversity Enhancement Plan.

1.4 Role of the Peat Management Plan

The PMP is intended to be a working document to be used throughout the key stages of the design, construction, operation, decommissioning and re-instatement phases of the Proposed Development as part of an overall Construction Environmental Management Plan (CEMP). These stages are outlined below.

Stage 1: Environmental Impact Assessment (EIA)

This report forms the initial PMP and is submitted as part of the EIA Report. From this initial report the PMP will be developed further into a Stage 2 Pre-Construction PMP.

Stage 2: Post Consent / Pre-Construction

The peat mass balance calculations may be further developed prior to the works commencing, following detailed ground investigation or further survey works required to inform detailed design, or that may be required under planning consent conditions.

Stage 3: Construction Stage

Actual peat volumes excavated during construction will be recorded against the overall predicted volumes. Within micrositing allowances, the alignment and design of tracks, tower foundation and associated construction methods will be reviewed to avoid/minimise peat disturbance as much as possible considering the more detailed information available once construction commences. A regular review and update of the peat mass balance table will be undertaken by the appointed Principal Contractor and monitored by the Ecological Clerk of Works (ECoW) on-site and made available to regulators as required.

1.5 Legislation and Guidance

The PMP has been compiled in accordance with the following legislation and best practice guidance:

- National Planning Framework for Scotland 4 (NPF4) (Scottish Government, February 2023)[2];
- Scottish Government, Scottish Natural Heritage, SEPA (2014) 'Peat Survey Guidance; Developments on Peatland: Site Surveys'[3];
- SEPA Regulatory Position Statement - Developments on Peat (Scottish Environment Protection Agency, 2010)[4];
- Good Practice During Wind Farm Construction, NatureScot (July 2024)[5];

[2] Scottish Government (2023). https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2022/11/national-planning-framework-4-revised-draft/documents/national-planning-framework-4-revised-draft/national-planning-framework-4-revised-draft/govscot%3Adocument/national-planning-framework-4-revised-draft.pdf

[3] Scottish Natural Heritage (SNH), SEPA, Scottish Government & James Hutton Institute. (2014)' Peat Survey Guidance; Developments on Peatland: Site Surveys'.

[4] Scottish Environment Protection Agency. 2010. Regulatory Position Statement – Developments on Peat

[5] NatureScot (July 2024), Good Practice During Wind Farm Construction. https://www.nature.scot/doc/good-practice-during-wind-farm-construction

- Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste (Scottish Renewables and SEPA, 2012) [6];
- The Waste Management Licensing (Scotland) Regulations 2011[7];
- Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (Scottish Government, January 2017) [8]; and
- Floating Roads on Peat - Report into Good Practice in Design, Construction and Use of Floating Roads on Peat with reference to Wind Farm Developments in Scotland (Forestry Commission Scotland & Scottish Natural Heritage, 2010) [9].

1.5.1 Requirements of National Planning Policy 4

The intent of Policy 5 (Soils) of National Planning Policy 4 (NPF4)[2] is "*to protect carbon rich soils, restore peatlands and minimise the disturbance of soils from development*".

The Policy states [5(a)] that development proposals should only be supported if they are designed and constructed:

- *in accordance with the mitigation hierarchy by first avoiding and then minimising the amount of disturbance to soils on undeveloped land; and*
- *in a manner that protects soils from damage including from compaction and erosion, and that minimises soils sealing.*

Further [5(c)] confirms *that development proposals on peatland, carbon rich soils, and priority peatland will only be supported if they are:*

- *essential infrastructure and there is a specific locational need and no other suitable site;*
- *the generation of energy from renewable sources that optimises the contribution of the area to greenhouse gas emissions reductions targets;*
- *small-scale development directly linked to a rural business, farm or croft;*
- *supporting a fragile community in a rural or island area; or*
- *restoration of peatland habitats.*

And [5(d)] confirms *that where development on peatland, carbon-rich soils or priority peatland habitat is proposed, a detailed site specific assessment will be required to identify:*

- *the baseline depth, habitat condition quality and stability of carbon rich soils;*
- *the likely effects of the development on peatland, including on soil disturbance; and*
- *the likely net effects of the development on climate emissions and loss of carbon.*

Policy 5 also confirms that the site specific (above) assessment [5(d)] "*should inform careful project design and ensure, in accordance with relevant guidance and the mitigation hierarchy, that adverse impacts are first avoided and then minimised through best practice. A peat management plan will be required to demonstrate that this approach has been*

[6] Scottish Renewables, Scottish Environment Protection Agency. 2012. Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste
[7] Scottish Government 2011, The Waste Management Licensing (Scotland) Regulations 2011. https://www.legislation.gov.uk/sdsi/2011/9780111012147/contents
[8] Peat Landslide Hazard and Risk Assessments (Scottish Government, April 2017)
[9] Scottish Natural Heritage, Forestry Commission (August 2010). Floating Roads on Peat

followed, alongside other appropriate plans required for restoring and/ or enhancing the site into a functioning peatland system capable of achieving carbon sequestration".

1.5.2 Mitigation Hierarchy

SEPA[4] has published guidance regarding the mitigation hierarchy for developments on peat which is summarised below:

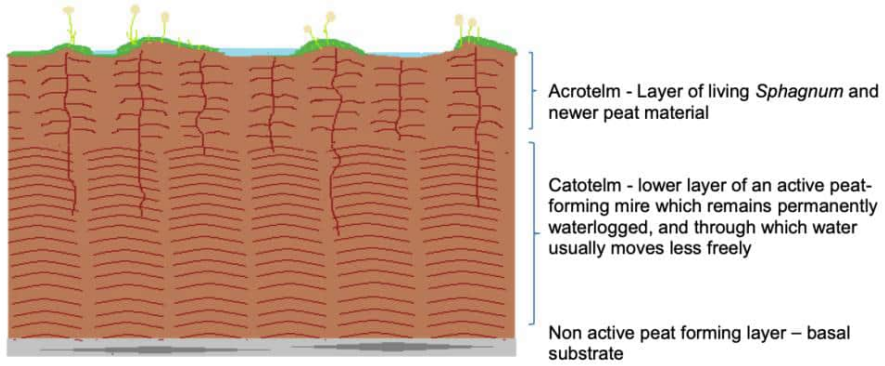
- Prevention – avoiding generating excess peat during construction (e.g. by avoiding peat areas or by using construction methods that do not require excavation such as floating tracks);
- Re-use – use of peat produced on-site in restoration, provided that its use is fully justified and suitable;
- Recycling / Recovery / Treatment – modify peat produced on-site for use as fuel, or as a compost / soil conditioner, or dewater peat to improve its mechanical properties in support to re-use; and
- Storage – applying the SEPA guidance, storage of peat up to a depth of 2m is not classified as a waste , however clarification should be sought from the waste regulator prior to re-use and care must be taken to ensure that it does not cause environmental pollution.

1.5.3 Definition of Peat

Peat is defined as a material consisting of the partially decomposed remains of plant material and organic matter preserved over a period in a waterlogged environment resulting in anaerobic conditions and is of depths >0.5m.

Peat can be classed as two principal types, the acrotelm layer and the catotelm layer as shown on **Plate 1-1**.

Plate 1-1: Drawing of two layered Structure of Active Bog Peatlands above Non-Active Peat[10]



The acrotelm layer is found in the upper layer of peat where conditions are relatively dry and comprises living vegetation and partially decomposed plant material. Hydraulic conductivity in this layer tends to be higher in relation to distance from the water table. The thickness of the acrotelm layer varies depending on topography such as steepness of slope, peat hags, and hummocks. In particular, the acrotelm layer can be affected during periods of drought or

[10] Bruneau, P.M.C & Johnson, S.M. 2014. Scotland's peatland - definitions & information resources. Scottish Natural Heritage Commissioned Report No 701.

as a consequence of drainage. Fibrous in texture, the acrotelm layer has some tensile strength and is generally considered to be stable for storage and re-use.

The catotelm layer is found under the acrotelm layer and comprises decayed plant material and organisms and is denser and with a very low hydraulic conductivity. The catotelm layer sits below the water table resulting in permanent anaerobic conditions. The catotelm layer is amorphous and has very low tensile strength making it less suitable for storage and re-use.

2.0 Baseline Conditions

2.1 Geology and Soils

2.1.1 Artificial Ground

Based on the information available from the BGS Geoindex[11], no made ground deposits are noted across the Proposed Development.

2.1.2 Superficial Geology

Based on the available BGS online data[11] the superficial geology in the north-western extent of the Proposed Development comprises of glacial till and glaciofluvial deposits. There are minor deposits of peat and blanket head deposits present. The central area of the Proposed Development is formed of glacial till and peat deposits whilst the southern extent is underlain by predominantly peat and glacial till. There are areas with no superficial deposits mapped and these relate to the hill tops. Within gulleys and rivers alluvium deposits are mapped.

Figure 9.1.3 shows the superficial geology BGS mapping and the Proposed Development.

2.1.3 Bedrock Geology

Based on the available BGS online data[11] the majority of the Proposed Development is underlain by gneissose semipelites and psammites of the Dalradian Supergroup, Beinn Bhreac Psammite Formation, Glen Banchor Subgroup and Slochd Psammite Formation. The centre of the Proposed Development, near An Socach comprises of the Loch Laggan Psammite Formation. The area south of Carn Ruighe Shamraich contains a minor unit of the Ardair Semipelite Formation.

Several igneous intrusions of the Scottish Highland Ordovician Minor Intrusion Suite composed of pegmatite and felsites of the North Britain Devonian Calc-alkaline Dyke Suite are noted across the Proposed Development.

A minor plutonic intrusion is mapped at carn Coire na Caorach on the western flank of the hill.

A number of inferred faults are present north-west of the Proposed Development trending north-east to south-west. There are no mapped faults within the Proposed Development.

Figure 9.1.4 shows the bedrock geology BGS mapping and the Proposed Development.

2.2 Peatland Classification

The Carbon and Peatland Map 2016[12] indicates that much of the southern and central extents of the Proposed Development are located within Class 1 peatland which are considered nationally important carbon-rich soils, deep peat and priority peatland habitats and areas likely to be of high conservation value. Within the north-western extent of Proposed Development there are localised Class 1 deposits close to Carn a' Gharbh Choire.

Class 5 peatland covers much of the area of the Proposed Development with discrete area of Class 3 (habitats which may contain carbon rich soils and deep peat but are not considered to be of high conservation value) present in the northern extent of the Proposed Development near Carn na Loinne.

[11] BGS Online Viewer, available at https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.133433804.376188765.1646739904-1030004651.1646739904
[12] NatureScot, Carbon and Peatland Map 2016, Available online at: https://map.environment.gov.scot/soil_maps/

2.3 Ground Stability Hazards

BGS Online data[11] records indicate that there is no risk regarding the mass movement or instability of materials.

2.4 Mining and Quarrying

Information from The Coal Authority Online Viewer[13] indicates that there are no active mines or quarries located across the Proposed Development and the Proposed Development is not within a coal mining reporting area.

BGS Online data[11] indicate there are two historical pits, named Dalnabeist and Carn a'Gharb-choire located in the north of the Proposed Development, both have ceased status.

2.5 Hydrogeology

Information from Scotland's Environment Online Map Viewer[14] indicates that the Proposed Development is underlain by the Strathnairn, Speyside, and Cairngorms waterbody (ID: 150709), and is classified as having a 'good' overall status, as part of the most recent information available from SEPA (2022).

The aquifer underlying the Proposed Development area is part of the Moine Supergroup, Class 2C and a low productivity aquifer. This suggests that small volumes of groundwater are present in near surface weathered zones and secondary fractures, and flow within the aquifer is predominantly through fractures and other discontinuities

2.6 Hydrology

Information from SEPA's Water Classification Hub[15] indicates that there are several rivers on and close to the Proposed Development.

The River Dulnain - Allt an Aonaich (ID: 23110), is located within the north-east corner of the Proposed Development and is classified as 'good' in this area.

River Dulnain - upper catchment (ID: 23107), is a river located approximately 1km south of the site boundary, flowing north to south. The main stem is approximately 24.5km in length.

The River Findhorn (ID:23012) is a major river located approximately 500m north of the site boundary, flowing south to north. The main tributary of the river is approximately 8.8km in length and out with the Proposed Development area.

2.7 Geomorphology

The Proposed Development is generally characterised by upland mountainous moorland that inclines in a north-east to south-west direction. The Proposed Development features steep hillslopes and deep valleys with topographic lows and breaks in slope. Areas in the north-east of the Proposed Development are generally topographically lower than in the central and southern areas. The Proposed Development also contains wide ridges and incised gulleys, with flatter expanses existing in the slope breaks and topographic lows between the hillslopes.

Typical conditions observed throughout the Proposed Development are detailed below in the following photographs.

[13] The Coal Authority, The Coal Authority Map Viewer, Available online at: https://datamine-cauk.hub.arcgis.com/

[14] Scotland's Environment, Scotland's Environment Map, Available online at: https://map.environment.gov.scot/sewebmap/

[15] SEPA, Water Classification Hub, available online at: https://www.sepa.org.uk/data-visualisation/water-classification-hub/

Photo 1: Gulley and steep slopes at Carn Ruighe Shamhraich looking west from Carn Coire na Cluanaich. National Grid Reference (NGR): NH 79564 22434.

2.7.1 Blanket Bog

Peat deposits are common throughout the Proposed Development, with areas of deep peat noted across the majority of the Proposed Development. There is an area of extensive blanket bog in west of the Proposed Development near Carn Bad an Daimh, peat depths of over 2m were recorded. Blanket bog was also surveyed north of T20, with over 2m of peat being recorded. There are localised hollows of blanket bog across the Proposed Development which occur at breaks of slopes. The borrow pit search area located directly east of T18 had small peat hollows present on the southern slopes. An area of localised peat bog is situated at the south-west slope of Carn a' Gharbh-choire within the break in slope before topography begins to steepen towards Carn na Glaic Fhluich.

Photo 2: Blanket Bog located east of Carn Bad an Daimh looking northeast. NGR: NH 76881 21680.

2.7.2 Peat Erosional Features

There are extensive areas of peat hagging across the Proposed Development. Peat haggs were seen on the flanks of Carn Core na Cluanaich (north-east of T12) with exposed haggs up to 2.5m in height. The west of the Proposed Development also has extensive erosional features with largescale hagging recorded on the east slopes of Carn Bad an Daimh near T26 with haggs of 1.8-2m measured. Peat haggs were observed at T2 related to active erosion on the north-west of Carn Mheadhoin. T15 also had extensive peat haggs with peat depths of 1.2m measured.

Based on site observations, hagging across the Proposed Development is likely associated with wind erosion due to the topographically exposed nature of this area and higher elevations. In addition, there is evidence of hydrologically influenced gully erosion due to localised networks of drainage across the peatland.

Photo 3: Peat haggs near T15 looking south-west. NGR: NH 78311 20942.

2.7.3 Artificial Drainage and Cuttings

The Proposed Development features extensive artificial drainage that generally trend north to south. These drainage ditches were recorded up to 1m deep and 0.8m wide. In some areas drainage was recorded as trending east to west, particularly at the south of T15, this was related to slope direction. Historical peat cuttings were noted during surveys within the area south-west of Carn a' Gharbh-choire. Further detail is provided in Section 3.3.

Photo 4: Drainage ditch trending north-west to south-east at T13. NGR: NH 79564 22434

Photo 5: Historical Peat cuttings south-west of Carn a' Gharbh-choire. NGR: NH 81910 25372.

3.0 Fieldwork

3.1 Peat Surveys

Peat surveys were carried out in accordance with best practice guidance for developments on peatland[16,17]. Phase 1 peat probing, undertaken by Atmos Consulting, was conducted on a 100m grid to allow for initial assessment of the Proposed Development and Phase 2 probing saw detailed higher resolution probing undertaken across the Proposed Development focussing on access tracks, turbine locations and other site infrastructure as well as potential micrositing allowances of 100m for turbines.

Where surveys were undertaken by SLR, the thickness of the peat was assessed using a graduated peat probe, approximately 6mm diameter and capable of probing depths of up to 10m. This was pushed vertically into the peat to refusal and the depth recorded, together with a unique location number and the co-ordinates from a handheld Global Positioning System instrument (GPS). The accuracy of the GPS was quoted as ±2m, which was considered sufficiently accurate for this survey. All data was uploaded into a GIS database for incorporation into various drawings and analysis assessments.

Where the peat probing met refusal on a hard substrate, the 'feel' of the refusal can provide an insight into the nature of the substrate. The following criteria were used to assess material:

- Solid and abrupt refusal – rock;
- Solid but less abrupt refusal with grinding or crunching sound – sand or gravel or weathered rock;
- Rapid and firm refusal – clay; or
- Gradual refusal – dense peat or soft clay.

The relative stiffness of the peat was also assessed from the resistance to penetration of the probe and from the effort required to extract the probes. In all instances refusal was met on obstructions allowing identification of subsurface geology.

3.2 Peat Depth

Peat is generally defined as a soil with a surface organic layer in excess of 0.5m[16]. Where the probing recorded less than 0.5m thick, it is considered to be a peaty soil (or organo-mineral soil). Soils with a peaty organic horizon over mineral soil are often referred to as 'peaty soils'. These organo-mineral soils are extensive across the UK uplands, but do not meet recognised definitions of peat as they are either shallower than true peat or have a lower carbon density.

The peat was found to vary across the Proposed Development in terms of thickness and coverage. Deeper peat was generally encountered in flatter, lower gradient areas of the Proposed Development. The maximum depth of recorded peat was 4.7 meters below ground level (mbgl), recorded at three locations; north-east of T12, south-west of T10 and north of T25. The average thickness of peat recorded across the Proposed Development was 0.5m.

[16] Scottish Renewables & SEPA (2012) 'Developments on Peatland Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste'.
[17] Scottish Natural Heritage (SNH), SEPA, Scottish Government & James Hutton Institute. (2014)' Peat Survey Guidance; Developments on Peatland: Site Surveys'.

Table A: Peat Probing Results

Peat Thickness (m)	No. of Probes	Percentage (of total probes undertaken on-site)
0 (no peat or soil)	203	1.9
0.01 – 0.49 (peaty soil)	6290	59.1
0.50 – 0.99	2512	23.6
1.00 – 1.49	833	7.8
1.50 – 1.99	536	5.0
2.00 – 2.49	176	1.7
2.50 – 2.99	47	0.4
3.00 – 3.49	25	0.2
3.50 – 3.99	3	0.0
> 4.0	16	0.2

3.3 Physical Peatland Condition

3.3.1 Peat Sampling

Peat is described using BS5930[18] and the Von Post classification[19]. Six peat cores and samples were collected by SLR during Phase 2 surveying, using a peat auger and this data was used to inform interpretations of the underlying peat condition and underlying substrate. Peat samples were undertaken to depths of between 0.6 and 1.9mbgl.

The peat was generally described as brown to dark brown, fibrous to pseudo-fibrous peat. The majority of the peat encountered throughout the Proposed Development would be classified as between H3 and H5 in the von Post classification, showing insignificant to moderate decomposition. Amorphous peat was not encountered during the peat coring.

Peat core logs and photographs are presented within **Annex B**.

3.3.2 Physical Peatland Condition Observations

The review of aerial imagery during the desk based review highlighted that the Proposed Development has been subject to a number of land use pressures in the form of grouse shooting, burning and artificial drainage.

The evidence of burn scars are widespread over the majority of the Proposed Development area with a higher density of burn scars present in the northern area of the Proposed Development.

An extensive network of artificial drainage in the form of hill drains are present within the central and western areas of the Proposed Development within the main turbine array area. However, limited artificial drainage is present within the southwestern area of the Proposed Development around Turbines T1, T2, T4, T5, T7 and T8.

As indicated in Section 2.7.3 the artificial drainage is typically 0.8m wide and 1m deep.

[18] BS 5930:2015+A1:2020, Code of practice for ground investigations
[19] Von Post, L. and Grunland, E., (1926), 'Sodra Sveriges torvillganger 1' Sverges Geol. Unders. Avh., C335, 1-127.

The artificial drains typically discharge into existing natural surface waters and existing trackside drainage. A plan showing the extensive artificial drainage and hydrology is provided in **Figure 9.2.5**.

As detailed in Section 2.7.2 peat erosional features are located within the Proposed Development boundary however are limited within the main areas of infrastructure.

The physical and hydrological peatland condition observations were based on NatureScot Peatland Condition Assessment[20] guidance and are summarised in Table B below with Photos provided in **Annex B**.

Based on the physical and hydrological observations the peatland within the area of the Proposed Development infrastructure is not considered to be in predominantly near natural condition with conditions typically modified, drained and some areas actively eroding.

Further details on the peatland habitats are provided in **Chapter 7: Ecology** and **Technical Appendix 7.1 Habitats**.

[20] Peatland ACTION. Peatland Condition Assessment.

Table B: Infrastructure and Physical Peatland Condition Observations

Infrastructure	Physical Peat Condition Observations and Pressures	NVC Survey Data*
T1	Modified - grazing (sheep and deer) and burning.	M19
T2	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage, Actively Eroding - Peat Haggs, gully erosion.	H10
T3	Actively Eroding – Peat Haggs, gully erosion.	M19
T4	Modified - grazing (sheep and deer) and burning.	M19
T5	Modified - grazing (sheep and deer) and burning.	H10
T6	Modified – grazing (sheep and deer) and burning. Drained Artificial – within 30m of an active drain.	M19 and H10
T7	Modified - grouse butts and drainage, grazing (sheep and deer) and burning.	M19 and H10
T8	Modified - grazing (sheep and deer), trampling and burning.	M19 and H10
T9	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	M19
T10	Modified – grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage.	M19 and H10
T11	Modified – grazing (sheep and deer) and burning. Drained Artificial – within 30m of an active drain.	M19 and H10
T12	Modified – grazing (sheep and deer) and burning.	U5
T13	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	M19
T14	Modified - grazing (sheep and deer), trampling and burning.	M19
T15	Drained Artificial – Active access track drainage, Actively Eroding - Peat haggs, gully erosion and bare peat.	M19
T16	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	M19
T17	Modified - grazing (sheep and deer), trampling and burning.	H10 and U5
T18	Modified - grazing (sheep and deer), trampling and burning.	H10 and U5
T19	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	M19

Infrastructure	Physical Peat Condition Observations and Pressures	NVC Survey Data*
T20	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – Active access track drainage.	H10, U5 and M19
T21	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain. Drained – Peat Haggs, gully erosion.	M19
T22	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	M19
T23	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – Active access track drainage.	H10
T24	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	H10, U5 and M19
T25	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	M19
T26	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	U5 and M19
Temporary Construction Compound (North)	Drained Artificial – Active access track drainage.	H10
Temporary Construction Compound (South)	Modified - grazing (sheep and deer), trampling and burning. Drained Artificial – within 30m of an active drain.	M19
Batching Plant	Modified - grazing (sheep and deer) and burning.	H10
Battery Energy Storage System and Substation	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage and active drain.	H10 and M19
Gatehouse Compound	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage, and active drain.	H10 and U5
Borrow Pit BP1	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage.	H10, U5 and M19
Borrow Pit BP2	Modified - grazing (sheep and deer) and burning.	H10
Borrow Pit BP3	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage, and active drain.	H10
Borrow Pit BP4	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage.	H10 and U5
New Access Tracks BP – T5	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage, and active drain.	H10 and U5

Infrastructure	Physical Peat Condition Observations and Pressures	NVC Survey Data*
New Access Tracks T1 – T9	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage.	H10 and M19
New Access Tracks T13 – T21	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage and active drain.	M19
New Access Tracks T18 – T24	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage and active drain.	H10, U5 and M19
New Access Tracks T20 – T25	Modified - grazing (sheep and deer) and burning. Drained Artificial – Active access track drainage and active drain.	M19

* Chapter 7 Ecology and Technical Appendix 7.1 Habitats

4.0 Potential Impacts on Peat During Construction

The initial construction phase for the Proposed Development will include soil and peat stripping and excavation activities associated with construction of the Proposed Development.

There are four main types of impact on peat that can occur during construction. These are:

- Loss of structural integrity and peat strength, due to stripping off or damaging the surface vegetation turf, excavation, handling, and transporting peat (particularly wet, subsurface peat);
- Erosion and gullying, caused by exposure and desiccation of bare peat surfaces primarily caused by water erosion, due to surface runoff after rainfall;
- Contamination, caused by leaks, spillages or inappropriate laydown of materials; and
- Peat slide, caused by laying wet peat on top of wet peat, laying other heavy materials (including excavated mineral soil or other construction materials) on top of wet peat or by inappropriate stockpiling, such as attempting to create stockpiles of peat that are too high, without bunding, engineering or geotechnical support.

A range of methods and control measures are described below which are designed to prevent these impacts from occurring.

5.0 Peat Management and Mitigation

The Proposed Development design took account of a number of environmental and technical constraints. The design sought to avoid areas of thick peat where technically feasible, whilst taking into account other environmental and technical factors such as ecology, ornithology, archaeology, hydrology, topography and existing infrastructure. The Proposed Development design evolution has largely avoided areas where peat is >1m based on initial surveys which were limited by access.

There are areas of the Proposed Development which are on extensive areas of deep peat >1m and it is acknowledged that the main mitigation will be further micro-siting of turbines and infrastructure will be undertaken to minimise excavation of peat during the construction phase.

Where peat and peaty soils are to be excavated, re-used or reinstated, the following good practice applies to protect carbon rich soils and mitigate impacts to peat.

5.1 Excavation

Excavated peat should be excavated as turves, including the acrotelm (surface vegetation) and a layer of adjoining catotelm (more humified peat) typically up to 0.5m thick in total, or as blocks of catotelm; the acrotelm should not be separated from its underlying peat;

- the turves should be as large as possible to minimise desiccation during storage, though the practicalities of handling should be considered;
- the mixing of excavated peat with substrate materials to be avoided at all times; and
- consider timing of excavation activities to avoid very wet weather and avoid multiple handling to minimise the likelihood of excavated peat losing structural integrity.

If possible, extract intact full depth acrotelm layers from the top surface of the peat deposit. This technique will maintain connectivity between the surface vegetation and the partially decomposed upper layers of the catotelm.

5.2 Re-use

It is anticipated that the volume of material excavated for the construction of the Proposed Development can be entirely reused for a variety of restoration purposes, including around constructed structures, restoration of temporary hardstanding areas, borrow pits and road verges. There is also potential for excavated peat to be used for habitat and peat restoration on or locally to the Proposed Development. This potential re-use option has not been quantified but will provide an additional method to retain and beneficially re-use material. Further details are provided in Section 6.0.

5.3 Storage

The following good practice applies to the storage of peaty soils/peat:

- stripped materials should be carefully separated to keep peat and other type of soils apart;
- to minimise handling and haulage distances, excavated material should be stored local to the site of excavation or end point of restoration;
- peat turves should be stored in wet conditions or irrigated in order to prevent desiccation (once dried, peat will not rewet);

- stockpiling of peat should be in large volumes to minimise exposure to wind and sun (and desiccation), but with due consideration for slope stability, but should not exceed 1m in height to maintain stability of stockpile;
- stockpiles should be isolated from watercourses or drains with appropriate bunding to minimise pollution risks;
- to be stored a minimum of 10m from any watercourse.
- stores of non-turf (catotelm) peat should be bladed off to reduce the surface area and desiccation of the stored peat; and
- peat storage areas should be monitored during periods of very wet weather, or during snowmelt, to identify early signs of peat instability.

Any peaty soils/peat to be removed during construction would require a temporary storage area near to the construction works/area of re-use. Where peat cannot be transferred immediately to an appropriate restoration area, short term storage will be required. In this case, the following good practice applies:

- peat should be stored around the excavation perimeter at sufficient distance from the cut face to prevent overburden induced failure;
- local gullies, diffuse drainage lines (or very wet ground) and locally steep slopes should be avoided for peat storage;
- drying of stored peat should be avoided by irrigation or by seeding (although this is unlikely to be significant for peat materials stored less than two months);
- peat generated from permanent excavations should be transported directly to its allocated restoration location, to minimise the volume being stockpiled with the possibility of drying out;
- stores of catotelm peat should be bladed off to reduce their surface area and minimise desiccation;
- where transport cannot be undertaken immediately, stored peat should be irrigated to limit drying and stored on a geotextile mat to promote stability; and
- monitoring of large areas of peat storage during wet weather or snowmelt should be undertaken to identify any early signs of peat instability.

5.4 Transport

The following good practice applies to transport:

- movement of turves should be kept to a minimum once excavated, and therefore it is preferable to transport peat planned for translocation and reinstatement to its destination at the time of excavation; and
- if heavy goods vehicles (HGVs)/dump trucks that are used for transporting non-peat material are also to be used for peat materials, measures should be taken to minimise cross-contamination of peat soils with other materials.

5.5 Handling

Following refinement of the peat model, a detailed storage and handling plan should be prepared forming part of the detailed CEMP, including:

- best estimate excavation volume at each infrastructure location (including peat volumes split into area/volume of ‘acrotelm’ or ‘turf’, and volume of catotelm) which would be achieved by undertaking additional probing in line with current guidance;

- volume to be stored locally and volume to be transferred directly on excavation to restoration areas elsewhere (e.g. peat storage areas) in order to minimise handling;
- location and size of storage area relative to tower foundations and natural peat morphology / drainage features; and
- irrigation requirements and methods to minimise desiccation of excavated peat during short term storage.

These parameters are best determined post-consent, informed by detailed ground investigation with the micro-siting areas for each element of infrastructure.

5.6 Restoration

During restoration, the following best practice should be followed:

- carefully evaluate potential restoration sites, such as peat storage areas for their suitability, and agree that these sites are appropriate with the ECoW, landowners and relevant consultees;
- undertake restoration and revegetation or reseeding work as soon as practically possible;
- where required, consider exclusion of livestock from areas of the Proposed Development undergoing restoration, to minimise impacts on revegetation; and
- as far as reasonably practicable, restoration will be carried out concurrently with construction rather than at its conclusion.

5.7 Access Tracks

There is guidance[5,9] available to support access track design in peatlands. Guidance is generally focused on floating tracks and excavated tracks and is summarised below.

Based on the avoidance of significant areas of thick peat with tracks all typically present on peat <1m and only limited sections of track on localised areas of peat >1m then the use of excavated tracks is proposed. Floating tracks may be considered on suitable length sections of access track where peat depths are >1m, where detailed ground investigation confirms suitability.

Excavated tracks require complete excavation of soil/peat to a competent substrate. Excavated tracks will generally be undertaken where peat depths are less than 1m. This peat/soil would require storage ahead of re-use elsewhere within Proposed Development. Good practice guidance relates mainly to drainage in association with excavated tracks:

- trackside ditches should capture surface water (within the acrotelm) before it reaches the road;
- interceptor drains should be shallow and flat bottomed (and preferably entirely within the acrotelm to limit drawdown of the water table);
- any stripped peat turves should be placed back in the invert and sides of the ditch to assist regeneration and prevent erosion to the peat and wash out that could occur; and
- culverts and cross drains should be installed under excavated tracks to maintain subsurface drainage pathways (such as natural soil pipes or flushes). Discharge from constructed drainage should allow for as much diffuse dispersion of clean (silt free) water as possible while minimising disturbance to existing peatland as far as possible. Silt mitigation measures will be incorporated into all constructed drainage as per the requirements of the CEMP.

Although excavation is normally undertaken in peat of minor thickness (< 1.0m), there is a possibility of minor slippage from the cut face of the peat mass. Accordingly:

- free faces should be inspected for evidence of instability (cracking, bulging, excessive discharge of water or sudden cessation in discharge); and
- where significant depths of peat are to be stored adjacent to an excavation, stability analysis should be conducted to determine Factor of Safety (FoS) and an acceptable FoS adopted for loaded areas.

Regular routine monitoring should be scheduled post-construction to ensure that hydrological pathways and track integrity have been suitably maintained.

5.8 Monitoring and Inspection

There would be frequent, routine, and regular inspections of peat in all stockpiles and temporary storage areas as part of, the PMP audit process. Inspections would assess in situ peat physical conditions, integrity of containment, and temporary drainage conditions, and they would seek to confirm that stockpile design and management were adequate to prevent erosion and peat slide. These inspections would take place weekly during stockpile creation and storage.

Should any problems be observed during regular visual inspections of peat stockpiles, this would invoke the implementation of an appropriate corrective action which would be recorded and monitored for effectiveness. Types of corrective actions would include, but would not necessarily be limited to; modification of temporary drainage, additional or modified bunding, incorporating of sediment fencing if required, light re-grading to correct any areas of surface erosion, etc.

Regular, frequent inspections of peat conditions during construction and restoration phases of work would be carried out by the Engineer and ECoW as follows:

- peat surface, peat profile, and peat consistency conditions would be carried out as part of ground investigations prior to the start of construction. This information would provide detailed information on the baseline conditions for each part of the infrastructure footprint;
- restored peat conditions would be inspected immediately after restoration to ensure that the methods detailed in the PMP had been correctly implemented and to inform any corrective actions should they be required;
- further monitoring to be undertaken where required to ensure restoration works have been correctly implemented; and
- the physical condition of peat would be retained as carefully as possible both at the peat storage and the peat restoration stages. This is particularly important for vegetation establishment.

6.0 Peat Balance Assessment

Table C provides an estimate of peat and peaty soil volumes to be excavated and re-used during the construction of the Proposed Development. The peat and peaty soil excavation and re-use volumes are detailed for each infrastructure element in **Annex A**.

6.1 Excavated Volumes

Peat excavation volumes associated with the construction of the Proposed Development have been calculated using the results from the peat depth surveys and interpolation using the GIS package ArcGIS. Peat excavation volumes are detailed in Table C and **Annex A** and based on the following assumptions:

- Interpolation of peat depth was undertaken using the Inverse Distance Weighting (IDW) interpolation method.
- An estimated acrotelm depth of 0.3m across all infrastructure based on peat depth survey results.
- The acrotelm volumes have been calculated based on the average peat depth across each item of infrastructure and linear infrastructure based on peat depth survey results.
- An assumption that the peat probe depths are representative of the actual depth of peat (validated by the peat coring).

The excavated volumes will comprise primarily acrotelmic peat and soils.

6.2 Reuse Volumes

The volume of peat to be reused around the Proposed Development is detailed in Table B and **Annex A** and based on the following assumptions:

- In appropriate locations around the infrastructure perimeter such as track verges, the edges of permanent structures a 2m wide strip either side of the track at a thickness of about 0.5m (turves and acrotelmic peat).
- In appropriate locations around the perimeter of turbine and hardstandings with a 1m wide strip and with an average peat depth of 0.5m.
- Reinstatement of temporary compound areas with an average peat depth of 0.5m to ensure integration with the adjacent habitat areas where possible which comprise blanket bog.
- Borrow pits to reuse peat with an average peat depth of 0.5m to ensure integration with the adjacent habitat areas where possible.

6.3 Net Peat Balance

Table C provides an estimate of peat volumes to be excavated and reused during the construction of the infrastructure.

Table C: Peat Balance Assessment

Infrastructure	Volume of Peat Excavated (m^3)	Volume of Peat Reused and Reinstated (m^3)
Access Track - Cut	62,290	39,176
Access Track - Floating	0	5,092
Access Track - Upgraded	5,287	13,556
Permanent Hardstandings	29,124	12,480
Temporary Hardstandings	11,392	11,392
Temporary Construction Compound (North)	440	440
Temporary Construction Compound (South)	2,360	2,360
Substation	2,967	220
Batching Plant	4,000	4,000
Battery Energy Storage System	13,860	500
Gatehouse Compound	108	108
Borrow Pits	95,013	160,500
Total	**226,841**	**249,824**

The total volume of peat predicted to be excavated of 226,841m^3, does not exceed the intended total peat reuse volume of 249,824m^3, therefore no excess peat is required to be disposed off-site as a consequence of the Proposed Development.

7.0 Waste Classification

This section of the Stage 1 PMP includes the method for dealing with peat which could potentially be classified as waste (only if the above volumes estimate significant quantities of catotelm peat, which cannot be re-used).

Table C outlines where those materials that are likely to be generated on-site, fall within the Waste Management Licensing (Scotland) Regulations 2011.

Based on the results presented in this document, it has been concluded that all of the materials to be excavated on-site would fall within the non-waste classification and would be re-used on-site. Based on a detailed probing exercise and visual inspection of the peat, it is predominantly fibrous peat which would be suitable to be re-used on-site. Typically, the peat was found to be fibrous and fairly dry within the top metre before becoming slightly more pseudo-fibrous with depth.

Table D: Excavated Materials – Assessment of Suitability

Excavated Material	Indicative Volume % of total excavated soils	Is there a suitable use for material	Is the Material required for use on Site	Material Classified as Waste	Re-use Potential	Re-use on Site
Turf and Acrotelmic Peat	70	Yes	Yes	Not classified as waste	Yes	Will be re-used in reinstatement of access track verges, cut and fill verges, road verges, side slopes and check drains. Peripheral embankments of turbine bases, crane hardstandings and reinstatement of borrow pits.
Catotelmic peat	30	Yes	Yes	Not classified as waste	Yes	Will be re-used in reinstatement of floated access track verges, cut and fill verges, road verges, side slopes and check drains. Peripheral embankments of turbine bases, crane hardstandings and reinstatement of borrow pits.
Amorphous Catotelm Peat (amorphous material unable to stand unsupported when stockpiled >1m)	0	Potentially	Potentially*	Potentially if not required as justifiable restoration of habitat management works	Limited	If peat does not require treatment prior to re-use it can be used on-site providing adequate justification and method statements are provided and approved by SEPA. If it is unsuitable for use without treatment then it may be regarded as a waste. However every attempt to avoid this type of peat has been incorporated into the design.

*Such uses for this type of material are limited, however there may be justification for use in the base of peat restoration areas to maintain waterlogged conditions and prevent desiccation of restored area and in some habitat management works, such as gully or ditch blocking, where saturated peat is required to mimic mire type habitats and encourage establishment of sphagnum.

8.0 Conclusion

This Stage 1 PMP presents a pre-construction assessment of the expected peat extraction and reuse volumes associated with the works phase of the construction of the main Windfarm development.

Through a process of continued design refinement (focused on minimising peat excavation volumes) and adoption of best practice working method, the development is expected to achieve an overall peat balance, i.e. the volume (and character) of excavated peat compliments requirements for re-use and reinstatement. Thus, all excavated material will be required for reuse as part of the works and no surplus peat is anticipated.

The Proposed Development supports peat of moderately decomposed peat with a very distinct plant structure that is considered suitable for re-use during reinstatement work, e.g. dressing of infrastructure edges, restoration and borrow pit restoration. Good practice standards, which will be outlined in the updated CEMP, relating to excavation, handling and storage of peat, shall ensure against any compromise to the structural integrity of the peat and its associated suitability for reuse.

Avoidance of localised pockets of deep peat that would otherwise require excavation will continue to be a key design refinement objective. Furthermore, it is expected that such micro-siting onto land supporting shallower peat deposits shall be possible during the Works.

Figures

Technical Appendix 9.2: Peat Management Plan

Clune Wind Farm

Renewable Energy Systems Ltd

SLR Project No.: 405.064807.00001

CLUNE WIND FARM
EIA REPORT

FIGURE 9.2.1

SITE LOCATION

Site Boundary

0 5 10 Kilometres

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0083.1

SCALE - 1:200,000@ A3

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FIGURE 9.2.2

SITE LAYOUT

- Site Boundary
- Proposed Turbine Location
- Proposed Watercourse Crossing
- Existing Watercourse Crossing
- Proposed Substation Compound
- Proposed Hardstanding
- Proposed Temporary Construction Compound
- Proposed Borrow Pit Search Area
- Proposed Gatehouse Compound
- Proposed Passing Place
- Proposed Batching Plant
- Proposed Battery Energy Storage System (BESS)
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0084.1

SCALE - 1:35,000 @ A3

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0 1 2 Kilometres

CLUNE WIND FARM
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FIGURE 9.2.3A

PEAT DEPTH

- Site Boundary
- Proposed Turbine Location
- Proposed Substation Compound
- Proposed Hardstanding
- Proposed Temporary Construction Compound
- Proposed Borrow Pit Search Area
- Proposed Gatehouse Compound
- Proposed Passing Place
- Proposed Batching Plant
- Proposed Battery Energy Storage System (BESS)
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0085.1

SCALE - 1:35,000 @ A3

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0 1 2
Kilometres

CLUNE WIND FARM
EIA REPORT

FIGURE 9.2.3B

PEAT DEPTH

- Site Boundary
- Proposed Temporary Construction Compound
- Proposed Borrow Pit Search Area
- Proposed Gatehouse Compound
- Proposed Passing Place
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
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SCALE - 1:6,000 @ A3

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0 200 400 Metres

Carn na Lòinne

Carn na Glaic Fhluich

BP2

0 200 400

Metres

CLUNE WIND FARM EIA REPORT

FIGURE 9.2.3C

PEAT DEPTH

- Site Boundary
- Proposed Borrow Pit Search Area
- Proposed Passing Place
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0085.1

SCALE - 1:6,000 @ A3

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FIGURE 9.2.3D

PEAT DEPTH

- Site Boundary
- Proposed Borrow Pit Search Area
- Proposed Passing Place
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

BP1

BP2

0 200 400

Metres

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0085.1

SCALE - 1:6,000 @ A3

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FIGURE 9.2.3E

PEAT DEPTH

- Site Boundary
- Proposed Turbine Location
- Proposed Hardstanding
- Proposed Borrow Pit Search Area
- Proposed Passing Place
- Proposed Batching Plant
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
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SCALE - 1:6,000 @ A3

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CLUNE WIND FARM
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FIGURE 9.2.3F

PEAT DEPTH

- Site Boundary
- Proposed Turbine Location
- Proposed Substation Compound
- Proposed Hardstanding
- Proposed Battery Energy Storage System (BESS)
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
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SCALE - 1:6,000 @ A3

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CLUNE WIND FARM
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FIGURE 9.2.3G

PEAT DEPTH

- Site Boundary
- Proposed Turbine Location
- Proposed Hardstanding
- Proposed Passing Place
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

0 200 400

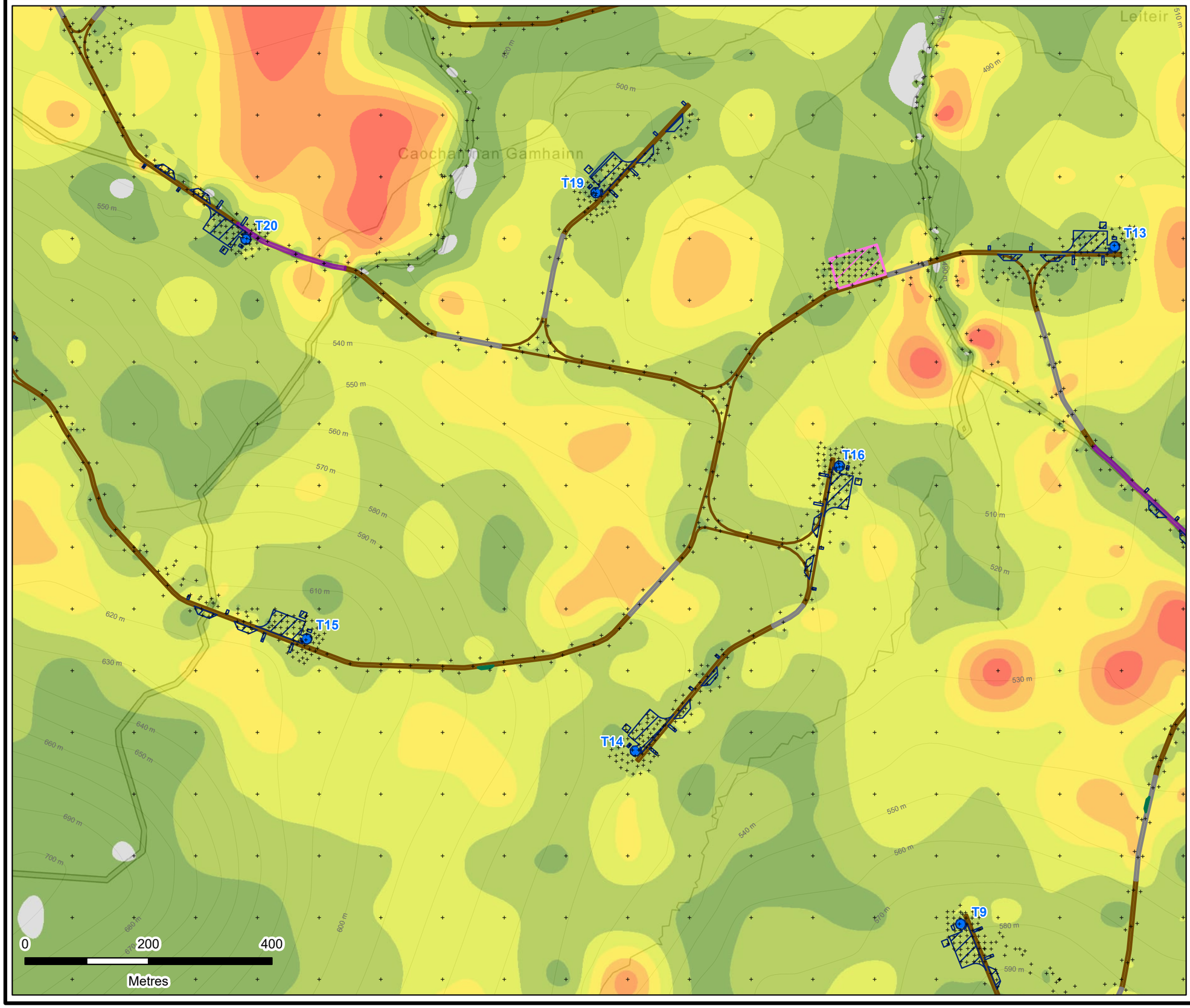
Metres

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0085.1

SCALE - 1:6,000 @ A3

ENVIRONMENTAL IMPACT ASSESSMENT REPORT 2025



CLUNE WIND FARM EIA REPORT

FIGURE 9.2.3H

PEAT DEPTH

- Site Boundary
- Proposed Turbine Location
- Proposed Hardstanding
- Proposed Temporary Construction Compound
- Proposed Passing Place
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0085.1

SCALE - 1:6,000 @ A3

ENVIRONMENTAL IMPACT ASSESSMENT REPORT 2025

CLUNE WIND FARM
EIA REPORT

FIGURE 9.2.3I

PEAT DEPTH

- Site Boundary
- Proposed Turbine Location
- Proposed Hardstanding
- Proposed Passing Place
- Proposed Floated Track
- Proposed Site Track
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

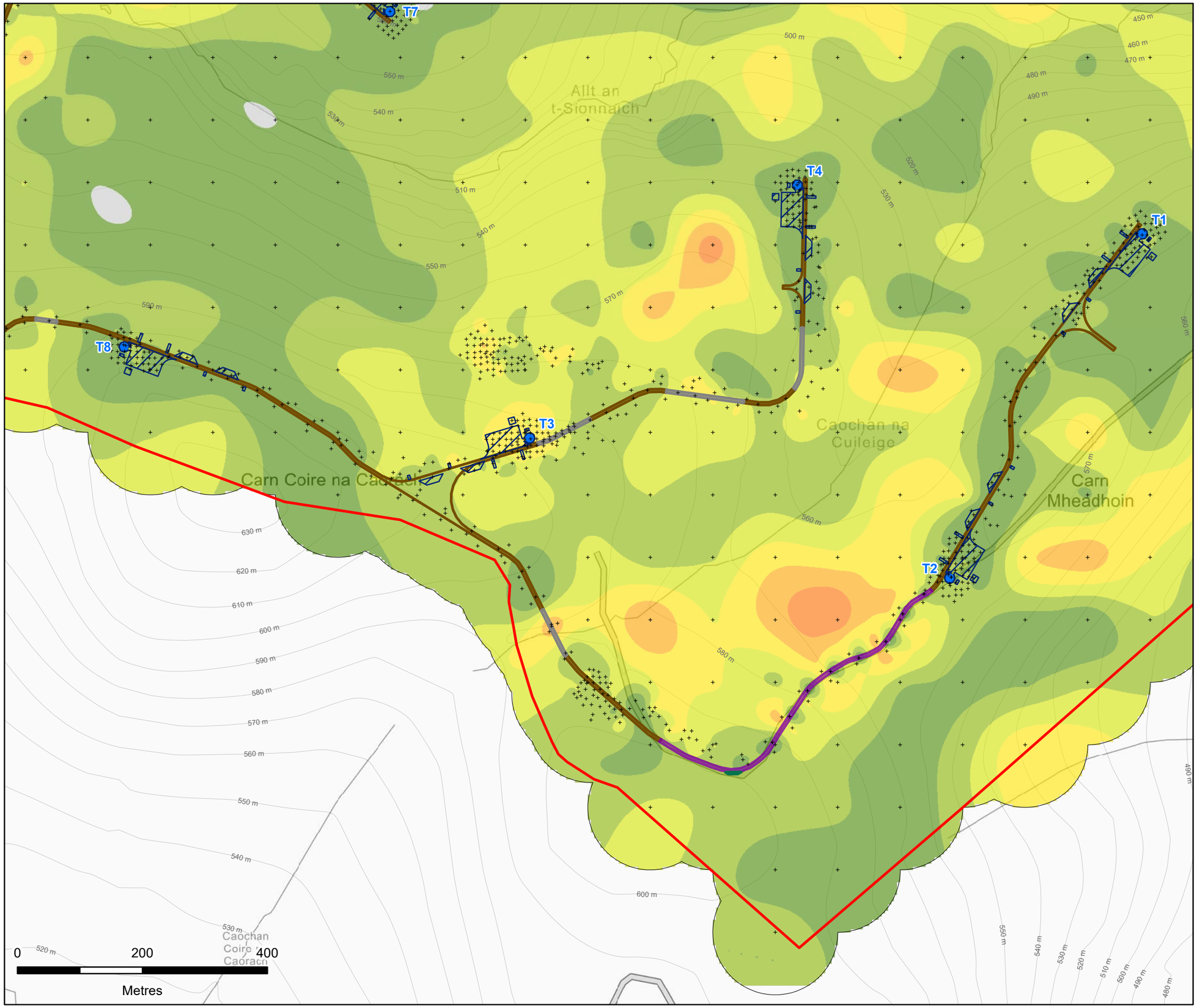
LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0085.1

SCALE - 1:6,000 @ A3

ENVIRONMENTAL IMPACT ASSESSMENT REPORT 2025

0 200 400
Metres



CLUNE WIND FARM EIA REPORT

FIGURE 9.2.3J

PEAT DEPTH

- Site Boundary
- Proposed Turbine Location
- Proposed Hardstanding
- Proposed Passing Place
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded
- Peat Probe

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

DRAWING NUMBER
405.064807.00001.0085.1

SCALE - 1:6,000 @ A3

ENVIRONMENTAL IMPACT ASSESSMENT REPORT 2025

CLUNE WIND FARM
EIA REPORT

FIGURE 9.2.4A

PEAT DEPTH DETAILED

FIGURE 9.2.4B
FIGURE 9.2.4C
FIGURE 9.2.4D
FIGURE 9.2.4E
FIGURE 9.2.4F
FIGURE 9.2.4G
FIGURE 9.2.4H
FIGURE 9.2.4I
FIGURE 9.2.4J

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16 T17 T18 T19 T20 T21 T22 T23 T24 T25 T26

- Site Boundary
- Proposed Turbine Location
- Proposed Substation Compound
- Proposed Hardstanding
- Proposed Temporary Construction Compound
- Proposed Borrow Pit Search Area
- Proposed Gatehouse Compound
- Proposed Passing Place
- Proposed Batching Plant
- Proposed Battery Energy Storage System (BESS)
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

0 1 2 Kilometres

LAYOUT DWG	NA
T-LAYOUT NO.	PSCOCLU041
DRAWING NUMBER	405.064807.00001.0086.1
SCALE -	1:35,000 @ A3

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FIGURE 9.2.4B

PEAT DEPTH DETAILED

- Site Boundary
- Proposed Temporary Construction Compound
- Proposed Borrow Pit Search Area
- Proposed Gatehouse Compound
- Proposed Passing Place
- Proposed Site Track
- Existing Track to be Upgraded

Peat Probe Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

0 200 400 Metres

LAYOUT DWG	T-LAYOUT NO.
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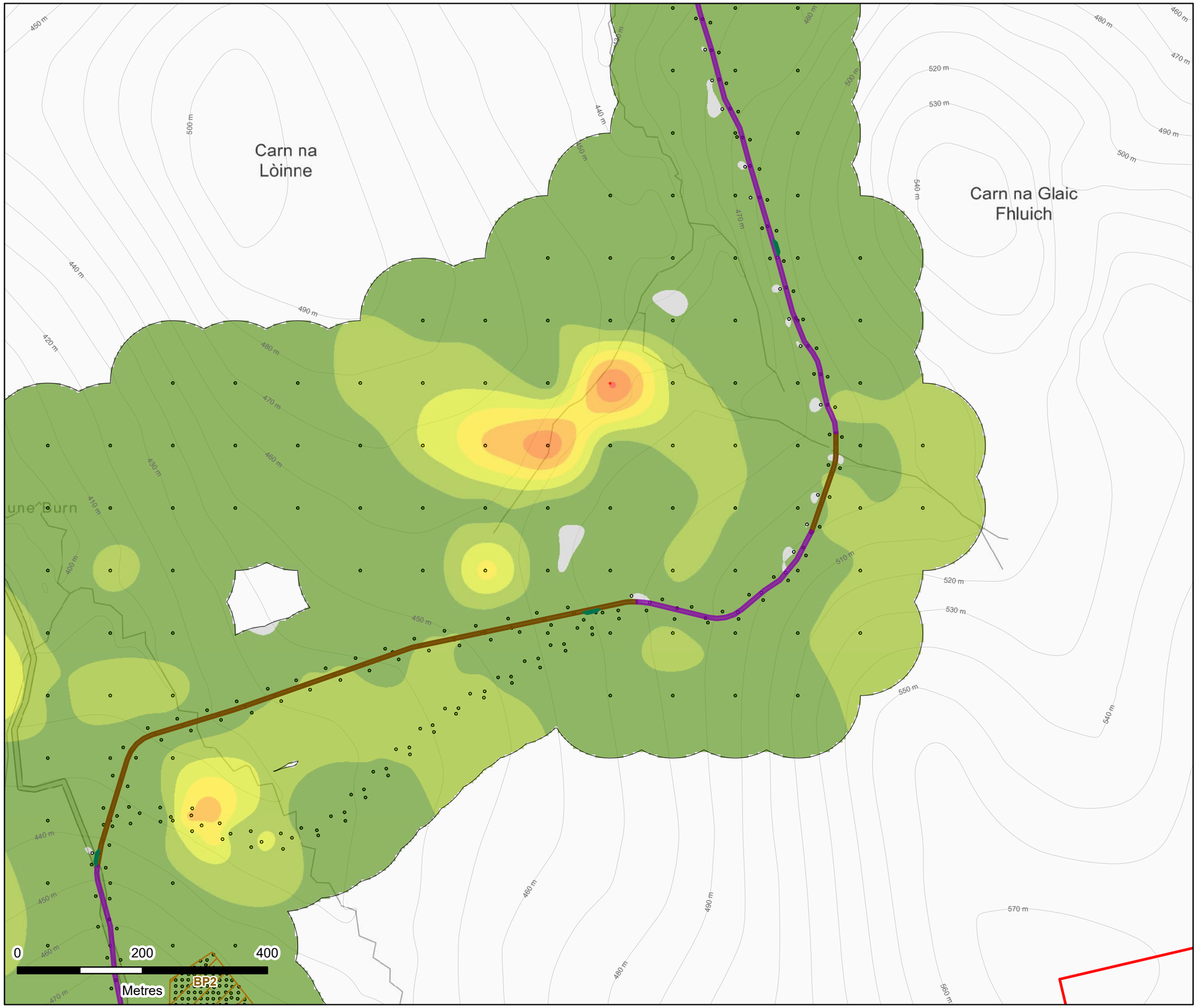

CLUNE WIND FARM
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FIGURE 9.2.4C

PEAT DEPTH DETAILED

- Site Boundary
- Proposed Borrow Pit Search Area
- Proposed Passing Place
- Proposed Site Track
- Existing Track to be Upgraded

Peat Probe Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

LAYOUT DWG	T-LAYOUT NO.
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FIGURE 9.2.4D

PEAT DEPTH DETAILED

- Site Boundary
- Proposed Borrow Pit Search Area
- Proposed Passing Place
- Proposed Site Track
- Existing Track to be Upgraded

Peat Probe Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

BP1

BP2

0 200 400 Metres

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

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FIGURE 9.2.4E

PEAT DEPTH DETAILED

- Site Boundary
- Proposed Turbine Location
- Proposed Hardstanding
- Proposed Borrow Pit Search Area
- Proposed Passing Place
- Proposed Batching Plant
- Proposed Floated Track
- Proposed Site Track
- Existing Track to be Upgraded

Peat Probe Depth (m)

- 0

- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Peat Depth (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

LAYOUT DWG	T-LAYOUT NO.
NA	PSCOCLU041

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