Beinn Ghlas Wind Farm Repowering EIA Report

Technical Appendix 8.3

Outline Peat Management Plan

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1 Introduction

This Outline Peat Management Plan (OPMP) document has been prepared by Fluid Environmental Consulting (Fluid) on behalf of the Applicant for the construction of the Proposed Development. The Site is located on the undulating uplands around the Carn Gaibhre summit on the Barguillean Estate south-east of Taynuilt and north of Loch Awe in Argyll and Bute.

The Site and Site Access is approximately 533 ha in area and ranges from less than 30 m Above Ordnance Datum (AOD) at the A85 to approximately 330 m AOD along the existing Fearnoch Forest and Beinn Ghlas Wind Farm access tracks and up to 461 m AOD at the summit of Carn Gaibhre within the main area of the Site. The Site comprises undulating topography with rock outcrops and depressions resulting in areas of deeper peat between crags and thinner peat or thin organic soils on the steeper slopes around rock outcrops. Areas of active peat erosion are present within the Site and limited evidence of peat cutting exists in isolated locations. The Site Access uses existing access tracks through the Fearnoch Forest and along the valley of the upper Allt Nathais north of Barguillean Farm.

The Proposed Development will comprise new excavated access tracks, upgraded existing access tracks and, where necessary, floated tracks. The infrastructure of the proposed layout is comprises of Site Access and Internal Access Tracks with a total length of approximately 12.83 km of which 2.71 km is new access track (1.6 km floating) with associated new watercourse crossings and 8.52 km is existing access track and watercourse crossings which would need to be upgraded, 7 turbine locations and associated crane hardstandings, two temporary construction compounds, and a permanent meteorological mast.

The total area of the Proposed Development footprint, including existing tracks, is 165,707 m^2. The design of the Proposed Development has been undertaken as an iterative process to avoid areas of deep peat as much as possible to limit peat excavation and to limit the potential for peat slide, as discussed in **Volume 2, Chapter 2: Proposed Development and Design Evolution** of the EIA Report.

The OPMP will be further developed and implemented subsequent to the Proposed Development receiving consent from in consultation with SEPA, Nature Scot and Argyll and Bute Council (A&BC). Further details and specific plans will be determined during the detailed design process and once further site investigations have been undertaken. These details will then be included in a detailed PMP as a part of the Principal Contractor's (PC) detailed Construction Environmental Management Plan (CEMP). The responsibility for the implementation of the PMP will be with the PC.

This OPMP has been developed due to identification of the presence of peatland and peat habitats on the Site (**Volume 2, Chapter 6: Ecology** of the EIA Report) and as requested by SEPA at scoping, and should be read in conjunction with the **Volume 4, Appendix 8.2 Peat Survey Report** of the EIA Report.

The potential volumes of peat extracted and re-used have been calculated based on an area specific or infrastructure specific basis, using a modelled peat contour plan developed on a high-density probing grid where excavations will be undertaken (Peatland Survey Guidance on Developments on Peatland Scottish Government, Scottish Natural Heritage, SEPA ,2017).

This OPMP addresses the management of peat during the construction period for the development and the restoration of the Site both during construction and once construction has been completed. In accordance with the SEPA Regulatory Position Statement (2010) Developments on Peat, as much peat as possible is reused on Site.

2 Objectives

This OPMP has been developed to demonstrate that peat has been afforded significant consideration and necessary protection during the construction phase of the Proposed Development, should consent be granted. It aims to propose mitigation measures that will

minimise any impacts to peat, and present the long-term habitat restoration and management plans for key areas in order to enhance the site.

The OPMP outlines the overall approach of minimisation of peatland disruption that has been adopted. It aims to ensure that all further opportunities to minimise peat disturbance and extraction will be taken.

The OPMP seeks to demonstrate that appropriate proposals to re-use the surplus peat can be accommodated within the site layout, without significant environmental or health and safety implications, to minimise risk in terms of carbon release and human health.

The OPMP aims to reinstate areas of the existing wind farm infrastructure that will be decommissioned where possible and appropriate.

The OPMP has been developed to comply with Policy 5 of National Planning Framework 4: National Spatial Strategy for Scotland, adopted by Scottish Ministers in February 2023. The policy principle is '*to protect carbon-rich soils, restore peatlands and minimise disturbance to soils from development.'*. It is noted that *'Development proposals on peatland, carbon rich soils and priority peatland habitat will only be supported for:*

II. The generation of energy from renewable sources that optimises the contribution of the area to greenhouse gas emissions reductions targets.'

3 Structure

The structure of the OPMP is as follows:

- Section 4 sets out the legislation, policy, and guidance, and the role of the outline peat management plan;
- Section 5 presents the definition of peat, details of peatland characteristics and peat conditions on site;
- Section 6 states the principles of avoidance and minimisation of peat disturbance;
- Section 7 presents the infrastructure and areas considered for excavation or floating and the assumptions that the calculations are based on;
- Section 8 presents the peat balance between excavation volumes associated with the Proposed Development and the proposed reuse of excavated peat;
- Section 9 details the general peat excavation and handling methods / controls and temporary peat storage;
- Section 10 discusses the general methodologies for reuse in infrastructure construction restoration and in habitat enhancement; and
- Section 11 provides a summary.

Tables are included showing:

- Table 1: a summary of depth of penetration probe data;
- Table 2: a summary of interpreted peat depth at infrastructure areas;
- Tables 3: a summary of dimension and area details of the infrastructure and associated excavation areas on peat;
- Tables 4: where excavated peat will be generated and the associated quantities;
- Table 5: where excavated peat will be re-used and the associated quantities both for degraded and higher quality peat;

- Table 6: where excavated peat can be used in peatland restoration and in what quantities; and,
- Table 7: a summary of the peat extraction and re-use balance.

The following EIA Report Volume 3a figures are referenced throughout where relevant:

- Figure 8.9 and 8.9a to 8.9c: Depth of Penetration;
- Figure 8.10 and 8.10a to 8.10c: Peat Depth Contour Map; and
- Figure 8.11: Peat Restoration Areas and Temporary Peat Storage Areas.

4 Legislation, Policy and Guidance for Peat Management

4.1 Legislation Policy and Guidance

When considered as part of a carbon landscape, peat has a capacity to act as a carbon sink. The management of peat therefore has implications for carbon emissions and climate change. There is a substantial body of legislation, policy and guidance regarding climate change and carbon which is relevant to the management of peat including:

- *The Carbon and Water Guidelines.* Carbon Landscapes and Drainage, 2012 www.clad.ac.uk; and
- Forestry Commission, 2011, 'Forests and climate change: UK Forestry Standard Guidelines.

Other key documents relied upon to inform this OPMP include:

- *National Planning Framework 4 (NPF4), Scottish Government, 2023;*
- *Scotland's National Peatland Plan Working for our future*. Scottish Natural Heritage, 2015;
- *Best Practice Guidance to Planning Policy Statement 18 'Renewable Energy', August 2009;*
- *Peatland Survey: Guidance on Developments on Peatland*. Scottish Government, Scottish Natural Heritage, SEPA, 2017;
- *Good practice during windfarm construction* (Scottish Renewables, SNH, SEPA & Forestry Commission Scotland, 4th Edition 2019)*;*
- *SEPA Regulatory Position Statement – Developments on Peat*. February 2010;
- *Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste*. Scottish Renewables, 17 January 2012;
- *Floating Roads on Peat: A Report into Good Practice in Design, Construction and Use of Floating Roads in Peat with particular reference to Windfarm Developments in Scotland*. Forestry Civil Engineering and SNH, 2010;
- *Forestry Commission (2012).* Forests & Water Guidelines. 5th Edition. HMSO;
- *Peat Slide Hazards and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments*. Scottish Executive, 2017; and
- *Towards an assessment of the state of UK Peatlands.* JNCC, 2010.

4.2 Role of the Peat Management Plan

The OPMP 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 CEMP as follows:

4.2.1 Stage 1: Environmental Impact Assessment (EIA)

It is necessary to show how, through site investigation and iterative design, the Proposed Development has been designed to minimise, so far as reasonably practicable, the quantity of peat which will be excavated; that volumes of peat anticipated to be excavated by the Proposed Development have been considered; and how excavated peat will be managed. The overall aim is to minimise the impacts associated with excavation of peat by using the following hierarchy of design principles: prevent excavation; reduce volumes of peat excavated; and reuse excavated peat in a manner to which it is suited. This hierarchical approach comprises:

1. Initial assessment of peat coverage on site based on a broad 100 m grid;
2. Design of layout based on various constraints including peat occurrence on site;
3. Further detailed site surveys undertaken to obtain peat depth across the proposed layout and micro-siting allowance and iteration as necessary;
4. Calculation of estimated volumes of excavated peat and potential reuse volume requirements based upon the proposed site design / layout;
5. Determine whether there is likely to be negative or positive overall peat balance, and whether the generation of excess material can be avoided, and, if not, where reductions in the volumes of excavated materials may be achieved;
6. Site layout is refined to avoid areas of deeper peat and hence reduce carbon impacts of the project construction activities;
7. Further surveys undertaken if required in new sections of infrastructure;
8. Record specific examples of how overriding principles of prevention and minimisation of peat disturbance are to be taken into account in the design of the site;
9. The assessment is to be consistent with and feed into the peat stability and carbon payback assessment; and
10. Identify limitations and make recommendations for further site investigation (post-consent) in order to steer detailed design and micro-siting such that opportunities for further reductions in excavated peat volumes can be implemented where possible.

4.2.2 Stage 2: Post Consent / Pre-Construction

As part of the EIA it has been demonstrated that, on the basis of the investigation and data gathered, it is likely that the excavated materials for the Proposed Development can be managed in an appropriate manner. The peat mass balance calculations may be further developed and refined post planning consent, and prior to the relevant works commencing, as a consequence of any further or more detailed ground investigation or survey works required to inform detailed design, or that may be required under planning consent conditions.

4.2.3 Stage 3: Construction Stage

Actual peat volumes excavated and reinstated during construction will be recorded against the overall predicted volumes provided in **Tables 5 and 6** of this OPMP. Within micro-siting allowances, the alignment and design of tracks, hardstanding orientation and construction methods will be reviewed to avoid/minimise peat disturbance as much as possible in light of the more detailed information available once construction actually commences. A regular review and update of the peat mass balance table will be undertaken by the appointed

Contractor and monitored by the Ecological Clerk of Works (ECoW) on Site, and made available to regulators as required.

5 Peat Conditions

5.1 Definitions of Peat

Organic material less than 0.5 m depth is not defined as peat. This is in accordance with guidance from:

- Scottish Government, Scottish Natural Heritage, SEPA (2017) Peatland Survey. Guidance on Developments on Peatland states that *'Peat soil is an organic soil which contains more than 60 per cent of organic matter and exceeds 50 centimetres in thickness'*;
- The James Hutton Institute define shallow peat as having 'a prescribed depth of organic matter of 50 – 100cm' (https://www.hutton.ac.uk/learning/exploringscotland/soils/organicsoils); and
- The Forestry Commission use 45 cm as the critical depth for peat to occur (*Understanding the GHG implications of Forestry on Peat Soils in Scotland,* 2010).

Peat can therefore be classified as organic material over 0.5 m in depth.

Peat can be separated into three main layers: acrotelmic (the upper living layer), catotelmic (the middle to lower layer) and occasionally amorphous (lower layer) peat:

- Acrotelmic peat is the living layer of the peat including the peat turf being a thin, floating vegetation mat layer. The acrotelm is generally found within the top layer of peat (often less than 0.5 m) depending on the degree of decomposition and fibrous nature of the peat (approximately H1 to H5 on the Von Post classification scale). The acrotelm is generally of high permeability, decreasing with depth. The water table fluctuates in this layer and conditions vary from aerobic to anaerobic. Material may be fibrous or pseudofibrous (plant remains recognisable), spongy, and when excavated strength is lost but retains integral structure and can stand unsupported when stockpiled up to 1m.
- Catotelmic peat is the dead layer of peat found deeper than acrotelmic peat which has some remnant plant structures. Material has high water content and is permanently below the water table (saturated) therefore organic matter decomposes anaerobically. Some plant structures may be recognisable but are highly humified losing most of their characteristics (approximately H6 to H8 on the Von Post classification scale) and strength. Water flow through the catotelm is slow unless peat structures such as sink holes or peat pipes are present.
- Amorphous peat is highly decomposed organic material where all recognisable plant remains are absent (approximately H9 to H10 in the Von Post classification scale). These deposits are dark brown to black in colour, plastic, are low tensile strength and are unable to stand unsupported up to 1 m when stockpiled.

5.2 Peat Conditions on Site

The Site was assessed for peat vegetation through desktop review of maps and plans and a number of surveys by ecologists and hydrologists; including intrusive site investigation in terms of peat depth probing and coring across the Proposed Development Site and access track routes (see **Volume 4, Technical Appendices 6.2, 6.4** and **8.2** of the EIA Report).

The terrain is highly undulating and hilly moorland with varying gradient and parts are subject to grazing. Historical burning has occurred across the Site, however there was no evidence of recent burning. There is evidence of manmade drainage ditches to the west of the Site. These

are no longer maintained and most have begun to fill in naturally, however it is possible that some are still functional. Limited evidence of peat cutting was seen in isolated locations.

Peat cover within the Site is generally located on shallower slopes but is scattered and there are no extensive areas of continuous peat (**Volume 3a, Figure 8.10c** of the EIA Report).

The EIA Report Ecology Chapter (**Volume 2, Chapter 6** of the EIA Report) notes that the majority of habitats onsite comprise a mosaic of wet heath and blanket bog. The Peat Condition Assessment survey found peatland habitats, namely blanket bog, to be in valley bases and on shallow slopes. The peatland condition varied across the Site, with all blanked bog having been subject to a degree of modification, such as historic burning and drainage, and grazing. Some areas of blanket bog were actively eroding.

5.3 Peat Depth Survey Results

The peat surveys completed and the methodology used is presented within **Technical Appendix 8.2** of the EIA Report.

A total of 5,032 locations were probed over the three peat survey campaigns. A total of 3,107 probes (61.7 %) recorded depths of 0.5 m or less (no peat), 1,071 probes (21.3 %) recorded depths of penetration between 0.5 m and 1.0 m and 854 probes (17.0 %) recorded depths of penetration >1.0 m, as shown in **Table 1**.

Table 1: Depth of Penetration Distribution

Depth Range (m)	Number of Probes	Percentage of Probes
0 to 0.5 (no peat)	3,107	61.7%
0.5 – 1.0	1,071	21.3%
1.0 – 1.5	362	7.19%
1.5 – 2.0	225	4.47%
2.0 – 3.0	194	3.86%
3.0 – 4.0	45	0.89%
4.0 – 5.0	14	0.28%
5.0 – 6.0	9	0.18%
>6	5	0.10%
Total	**5,032**	**100%**

The depth of penetration at each probe location is presented on **Figures 8.9 and 8.9a to 8.9c** in **Volume 3a** of the EIA Report.

Based on the data collected an interpreted peat depth map (**Figures 8.10 and 8.10a to 8.10c** in **Volume 3a** of the EIA Report) was produced to demonstrate the variation in peat across the Site and at the infrastructure locations. A comparison of the peat depth with the infrastructure footprint is presented in **Table 2**.

Table 2: Interpreted Peat Depth across the Proposed Development Footprint

Depth Range (m)	Area of infrastructure footprint (m^2)	Area of infrastructure footprint (%)
0 to 0.5 (no peat)	104,423	65.06%
> 0.5 - 1.0 m	38,345	23.89%

Depth Range (m)	Area of infrastructure footprint (m^2)	Area of infrastructure footprint (%)
> 1.0 - 1.5 m	11,643	7.25%
> 1.5 - 2.0 m	3,982	2.48%
> 2.0 - 3.0 m	1,775	1.11%
> 3.0 - 4.0 m	260	0.16%
> 4.0 - 5.0 m	82	0.05%
> 5.0 - 6.0 m	17	0.01%
Total	**160,510**	**100%**

These data indicate that peat >1.0 m depth is present across 11.05 % of the Proposed Development infrastructure and no peat (0 – 0.5 m depth) is present across 65.06 % of the Proposed Development infrastructure. The OPMP is therefore only concerned with the 34.9 % of the infrastructure that overlies peat.

A total of 25 cores were completed with all cores encountering peat with acrotelm and catotelm layers identifiable. The average acrotelm depth recorded is 0.17 m and the peat depth minus the acrotelm depth can been used to calculate the catotelm thickness.

5.4 Peat Characteristics

The peat is moderate to highly fibrous (mainly low to moderate content of fine fibres in cores and low to moderate content of coarse fibres) and moderate to high moisture content (Von Post B values) at the surface with a distinctive acrotelmic layer occurring in all of the 25 coring locations and ranging between 0.05 m and 0.30 m in thickness.

The catotelmic peat was up to a maximum of 2.55 m in thickness but no clear basal layer of amorphous peat (H9/H10) was observed. Very little wood was observed within the cores.

These values have been used in calculations of volumes of peat across the Site where the peat contour map indicates that peat is present (e.g. >0.5 m probe depth). Catotelm and amorphous peat volumes were calculated together as a result of there being no clear basal layer of amorphous peat observed.

6 Avoidance and Minimisation of Peat Disturbance

6.1 Avoidance

The infrastructure layout has been designed to avoid or minimise impact on blanket bog habitats and deep peat, and has been an iterative process to design around these constraints. The mapping of peat depth through probing has therefore allowed a peat depth contour map to be generated with a greater level of detail at proposed infrastructure locations to enable higher confidence in the avoidance of peat. Where this is unavoidable for any section of track, a floating track design is proposed if feasible.

The impact on the blanket bog habitats is discussed within **Volume 2, Chapter 6** of the EIA Report.

6.2 Further Minimisation

The disturbance of peat by the construction of the tracks, crane hardstandings, turbine foundations and other infrastructure will be minimised as much as practicably possible, taking into account the other constraints to the Proposed Development, in order to try and reduce any

peat waste on Site and the need for a waste management licence, and reduce potential carbon losses from the peat excavation process.

Throughout the construction process, the appointed PC (and / or Designer) will aim to minimise the volumes of excavated peat. As far as possible, appropriate handling and storage of excavated materials will be undertaken such that their integrity and subsequent reuse is not jeopardised.

Although every effort has been made to map and identify sensitive habitats as thoroughly as possible, adjustment within the micrositing limits (proposed as 50 m) may allow further improvements to avoid particularly sensitive pockets of habitat. Further measures to minimise peat disturbance will be incorporated in the development and construction process. The principles of the waste hierarchy (outlined above) will be adhered to in order to:

- avoid and/or minimise production of excavated peat;
- reuse, where possible, excavated peat on site to facilitate habitat, ecological and hydrogeological restoration, improvement and enhancement; and
- avoid waste peat being sent for disposal, recovery and/or reuse off site.

All contractors will be made aware of the sensitivity of peat and wetland habitats, and will be required to work within the narrowest practical construction corridor when working in or near areas of peat.

All plans and method statements will be accompanied by justification of the final design and/or construction methods identified by the Contractor, including reasons for discounting alternative methods. This is required in order to demonstrate that all avenues for avoiding hydrological disruption and reducing the disturbance and excavation of peat have been considered.

It is anticipated that an ECoW will be appointed for the construction phase and will:

- identify areas of sensitive habitat;
- clearly mark sensitive habitats near to construction areas and make the Principal Contractor aware of the sensitivity of peat habitats and inform all sub-contractors;
- walk the areas affected by the Proposed Development with engineers before construction commences;
- authorise minor movement of infrastructure within the micro-siting available where impact can be reduced; and
- monitor that any micro-siting does not result in movements into more sensitive habitats and deep peats unless unavoidable.

7 Peat Excavation Areas

The Proposed Development infrastructure and dimensions used in the peat balance calculations are summarised in **Table 3**.

Table 3: Infrastructure Dimension Final Layout

Infrastructure	Dimensions	Area (m^2)
7 x Turbine and Crane Hardstanding Areas (permanent)	Irregular (appr. 70 m x 40 m)	21,732
7 x Turbine and Crane Hardstanding Areas (temporary)	Irregular (appr. 69 m x 34 m)	30,867
Temporary Construction Compound 1	Approx. Rectangle (118 m x 42 m)	4.964

Infrastructure	Dimensions	Area (m^2)
Temporary Construction Compound 2	Irregular. Approx 120 x 60 max	5,311
Met Mast	Rectangle (14 m x 14 m)	196
Temporary Track to Construction Compound 2	Average width (5.5 m) Length (118 m)	648
Existing track to be widened	Average additional width of widening (~2 m) for Length (8,520 m)	17,273
New track (excavated)	Average width (5.5 m) for Length (2,700 m)	21,239
New Track Floating	Average width (5.5 m) Length (1,600 m)	8,805
Earthworks	Irregular	54,675
Total		**165,707**

The dimensions summarised in **Table 3** relate to the infrastructure footprint, however the actual excavation footprint is larger due to the earthworks footprint which are presented in **Table 4**.

8 Excavation and Reuse Volume Estimates and Reuse Requirements

8.1 Excavated Volumes

Peat excavation volumes associated with the Proposed Development have been calculated using the GIS package ArcGIS based on the data in **Table 3** and these further assumptions:

- A contour map of assumed peat depth based on interpolation of values from probing across the Site (shown in **Figures 8.10 and 8.10a to 8.10c** in **Volume 3a** of the EIA Report);
- Dimensions of the proposed areas for excavation for site infrastructure on peat of >0.5 m based on the Final layout shape files provided (shown in **Figures 8.10 and 8.10a to 8.10c** in **Volume 3a** of the EIA Report) and detailed in **Table 3**, with excavation footprints presented in **Table 4**;
- An estimated acrotelm depth of 0.17 m across infrastructure area where peat (>0.5 m organic soil) is present based on the peat core data;
- An estimated catotelm thickness of the average depth of the peat minus the acrotelm (0.17 m) across infrastructure areas where peat is present, and based on the peat core data;
- An assumption that the probe depth is representative of the actual depth of the peat (validated by the spatial coverage of 25 cores); and
- Any peat excavated for cable trenches is stored adjacent to the trench while the track is laid and then replaced, therefore this volume is not applicable to the excavated volume.

Using the interpreted peat depth contour map (**Figures 8.10 and 8.10a to 8.10c** in **Volume 3a** of the EIA Report), the volumes of peat that would be excavated during construction were calculated based on the final layout infrastructure dimensions (ArcGIS shapefiles) and associated excavation areas provided for the Proposed Development (**Table 4**). These calculations produced the following volume estimates and are detailed in **Table 5** and **Table 6**:

- A total volume of peat to be excavated of 43,864 m^3;

  This comprises:

- Total volume of acrotelm which will be excavated = 8,050 m^3; and
- Total volume of catotelm which will be excavated = 35,814 m^3.

These values are estimates based on the available data and the above assumptions.

Table 4: Excavated Peat Volumes Based on Actual Footprint

Infrastructure	Infrastructure area (m^2)	Average peat depth over infrastructure area (m)	Percentage of infrastructure with >0.5m depth of peat	Area of infrastructure with >0.5m depth of peat (m^2)	Average peat depth over area of infrastructure with >0.5m depth of peat (m)	Volume of peat excavated (m^3)	Volume of acrotelm peat excavated (m^3)	Volume of catotelm peat excavated (m^3)
Turbine and Crane Hardstanding 1 (Permanent)	3,105	0.33	6	189	0.64	121	32	89
Temporary Hardstanding 1	4,447	0.44	33	1,469	0.68	1,005	250	755
Earthworks Turbine 1	4,006	0.40	25	1,002	0.66	664	170	494
Turbine and Crane Hardstanding 2 (Permanent)	3,105	0.43	24	734	0.90	657	125	533
Temporary Hardstanding 2	4,457	0.51	42	1,882	0.92	1,726	320	1,406
Earthworks Turbine 2	1,956	0.46	40	784	0.88	689	133	556

Infrastructure	Infrastructure area (m^2)	Average peat depth over infrastructure area (m)	Percentage of infrastructure with >0.5m depth of peat	Area of infrastructure with >0.5m depth of peat (m^2)	Average peat depth over area of infrastructure with >0.5m depth of peat (m)	Volume of peat excavated (m^3)	Volume of acrotelm peat excavated (m^3)	Volume of catotelm peat excavated (m^3)
Turbine and Crane Hardstanding 3 (Permanent)	3,105	0.69	50	1,553	1.13	1,750	264	1,486
Temporary Hardstanding 3	4,284	0.75	57	2,462	1.12	2,750	419	2,332
Earthworks Turbine 3	2,425	0.64	58	1,401	0.89	1,253	238	1,014
Turbine and Crane Hardstanding 4 (Permanent)	3,105	0.73	71	2,213	0.91	2,006	376	1,630
Temporary Hardstanding 4	4,533	0.51	51	2,331	0.74	1,733	396	1,337
Earthworks Turbine 4	2,999	0.57	49	1,457	0.91	1,321	248	1,073

Infrastructure	Infrastructure area (m^2)	Average peat depth over infrastructure area (m)	Percentage of infrastructure with >0.5m depth of peat	Area of infrastructure with >0.5m depth of peat (m^2)	Average peat depth over area of infrastructure with >0.5m depth of peat (m)	Volume of peat excavated (m^3)	Volume of acrotelm peat excavated (m^3)	Volume of catotelm peat excavated (m^3)
Turbine and Crane Hardstanding 5 (Permanent)	3,105	0.76	57	1,783	1.13	2,013	303	1,710
Temporary Hardstanding 5	4,480	0.99	75	3,355	1.21	4,068	570	3,498
Earthworks Turbine 5	3,217	0.77	60	1,926	1.07	2,051	327	1,724
Turbine and Crane Hardstanding 6 (Permanent)	3,105	0.31	24	749	0.86	645	127	518
Temporary Hardstanding 6	4,228	0.36	28	1,168	0.73	849	199	651
Earthworks Turbine 6	2,277	0.39	34	785	0.78	613	133	479

Infrastructure	Infrastructure area (m^2)	Average peat depth over infrastructure area (m)	Percentage of infrastructure with >0.5m depth of peat	Area of infrastructure with >0.5m depth of peat (m^2)	Average peat depth over area of infrastructure with >0.5m depth of peat (m)	Volume of peat excavated (m^3)	Volume of acrotelm peat excavated (m^3)	Volume of catotelm peat excavated (m^3)
Turbine and Crane Hardstanding 7 (Permanent)	3,105	0.40	21	664	0.66	440	113	327
Temporary Hardstanding 7	4,439	0.47	31	1,374	0.90	1,232	234	999
Earthworks Turbine 7	2,900	0.45	31	896	0.81	726	152	573
Temporary construction Compound 1	4,963	0.00	60	2,997	0.00	0	0	0
Temporary construction Compound 2	5,310	0.62	14	758	0.84	634	129	506
Temporary construction Compound 2 Earthworks	935	0.93	21	196	1.08	211	33	177
Met Mast 1	196	0.91	331	648	0.91	590	110	480

Infrastructure	Infrastructure area (m^2)	Average peat depth over infrastructure area (m)	Percentage of infrastructure with >0.5m depth of peat	Area of infrastructure with >0.5m depth of peat (m^2)	Average peat depth over area of infrastructure with >0.5m depth of peat (m)	Volume of peat excavated (m^3)	Volume of acrotelm peat excavated (m^3)	Volume of catotelm peat excavated (m^3)
Temporary floating Track	648	1.64	101	654	1.64	0	0	0
Temporary floating Track Earthworks	659	1.91	192	1,265	1.92	0	0	0
Upgraded Existing Track	17,273	0.11	20	3,456	0.86	2,981	588	2,394
Upgraded Existing Track Earthworks	16,515	0.31	35	5,766	0.95	5,452	980	4,472
New Track Excavated	21,239	0.34	10	2,118	0.90	1,911	360	1,550
New Track Excavated Earthworks	9,666	0.32	44	4,231	0.89	3,771	719	3,052
New Track Floating	8,804	0.59	45	3,942	0.88	0	0	0

Infrastructure	Infrastructure area (m^2)	Average peat depth over infrastructure area (m)	Percentage of infrastructure with >0.5m depth of peat	Area of infrastructure with >0.5m depth of peat (m^2)	Average peat depth over area of infrastructure with >0.5m depth of peat (m)	Volume of peat excavated (m^3)	Volume of acrotelm peat excavated (m^3)	Volume of catotelm peat excavated (m^3)
New Track Floating Earthworks	7,120	0.70	147	10,468	0.98	0	0	0
Total	**165,707**			**66,676**		**43,864**	**8,050**	**35,814**

Note: where rows do not exactly add up this is due to rounding up of values

8.2 Peat Reuse Volumes

From **Table 3** and **Table 4** above, the volume of peat that will be removed by excavation of the infrastructure is 8,050 m^3 of acrotelm and 35,814 m^3 of catotelm.

This volume of peat will be reused around the Site in the following areas, as detailed in **Table 5**:

- In appropriate locations around the infrastructure perimeter such as track verges and the edges of crane hardstandings at a thickness of about 0.3 m where the infrastructure is located in a peat area. This should essentially be the reinstatement of excavated peat turfs and tie in with the adjacent peat. The length of the infrastructure coincident with peat as defined by the peat contour mapping has been calculated at 9,375 m.
- Reinstatement of all temporary hardstanding areas, temporary track and temporary turning heads on peat. This covers an area of:
    - For reinstatement of the Temporary Construction Compound over the 5,308 m^2 area with a 1.0 m thickness of peat as currently located in this area;
    - A total of six areas that have been identified to restore degraded areas of peat. These are discussed in more detail below and shown in **Figure 8.11** in **Volume 3a** of the EIA Report; and
    - For reinstatement of areas of the existing wind farm that occupy a total area of 7,509 m^2. Peat will be placed in these areas at varying depths to tie in to the existing peat habitat and allow this area to be restored. These are shown in **Figure 8.11** in **Volume 3a** of the EIA Report.

Table 5: Estimated Potential Reuse Volumes for Excavated Peat

Reuse Type	Reuse Summary	Acrotelm volume (m^3)	Catotelm volume (m^3)	Total Volume (m^3)
Temporary Hardstanding 1	Backfill temporary area with 0.68 m depth of peat in an area of 4,447 m^2	756	2,286	3,042
Earthworks Turbine 1	Backfill temporary area with 0.66 m depth of peat in an area of 4,006 m^2	681	1,974	2,655
Temporary Hardstanding 2	Backfill temporary area with 0.92m depth of peat in an area of 4,457 m^2	758	3,329	4,087
Earthworks Turbine 2	Backfill temporary area with 0.88m depth of peat in an area of 1,956 m^2	333	1,388	1,720
Temporary Hardstanding 3	Backfill temporary area with 1.12m depth of peat in an area of 4,284 m^2	728	4,057	4,785
Earthworks Turbine 3	Backfill temporary area with 0.89m depth of peat in an area of 2,425 m^2	412	1,756	2,169

Reuse Type	Reuse Summary	Acrotelm volume (m^3)	Catotelm volume (m^3)	Total Volume (m^3)
Temporary Hardstanding 4	Backfill temporary area with 0.74m depth of peat in an area of 4,533 m^2	771	2,600	3,370
Earthworks Turbine 4	Backfill temporary area with 0.91m depth of peat in an area of 2,999 m^2	510	2,209	2,718
Temporary Hardstanding 5	Backfill temporary area with 1.21m depth of peat in an area of 4,480 m^2	762	4,670	5,432
Earthworks Turbine 5	Backfill temporary area with 1.07m depth of peat in an area of 3,217 m^2	547	2,879	3,426
Temporary Hardstanding 6	Backfill temporary area with 0.73m depth of peat in an area of 4,228 m^2	719	2,355	3,074
Earthworks Turbine 6	Backfill temporary area with 0.78m depth of peat in an area of 2,277 m^2	387	1,391	1,778
Temporary Hardstanding 7	Backfill temporary area with 0.9m depth of peat in an area of 4,439 m^2	755	3,226	3,980
Earthworks Turbine 7	Backfill temporary area with 0.81m depth of peat in an area of 2,900 m^2	493	1,855	2,348
Temporary construction Compound 1	Backfill temporary area with 0m depth of peat in an area of 4,963 m^2	0	0	0
Temporary construction Compound 2	Backfill temporary area with 0.84m depth of peat in an area of 5,310 m^2	903	3,542	4,444
Temporary construction Compound 2 Earthworks	Backfill temporary area with 1.08m depth of peat in an area of 935 m^2	159	847	1,006
Temporary floating Track	Backfill temporary area with 1.64m depth of peat in an area of 648 m^2	110	955	1,065
Temporary floating Track Earthworks	Backfill temporary area with 1.92m depth of peat in an area of 659 m^2	112	1,155	1,267

Reuse Type	Reuse Summary	Acrotelm volume (m^3)	Catotelm volume (m^3)	Total Volume (m^3)
Upgraded Existing Track Earthworks	Backfill temporary area with 0.95m depth of peat in an area of 5,064 m^2	861	3,928	4,788
New Track Excavated Earthworks	Backfill temporary area with 0.89m depth of peat in an area of 3,738 m^2	635	2,696	3,332
New Track Floating Earthworks	Backfill temporary area with 0.98m depth of peat in an area of 6,803 m^2	1,157	5,519	6,675
Existing windfarm reinstatement area A	Area of 420 m^2 to be infilled to a depth of 2.0 m.	71	799	870
Existing windfarm reinstatement area B	Area of 763 m^2 to be infilled to a depth of 0.96 m.	130	605	735
Existing windfarm reinstatement area C	Area of 34 m^2 to be infilled to a depth of 0.53 m.	6	12	18
Existing windfarm reinstatement area D	Area of 114 m^2 to be infilled to a depth of 0.61 m.	19	50	69
Existing windfarm reinstatement area E	Area of 81 m^2 to be infilled to a depth of 0.65 m.	14	39	53
Existing windfarm reinstatement area F	Area of 518 m^2 to be infilled to a depth of 1.13 m.	88	499	587
Existing windfarm reinstatement area G	Area of 84 m^2 to be infilled to a depth of 0.58 m.	14	35	49
Existing windfarm reinstatement area H	Area of 216 m^2 to be infilled to a depth of 1.26 m.	37	235	272

Reuse Type	Reuse Summary	Acrotelm volume (m^3)	Catotelm volume (m^3)	Total Volume (m^3)
Existing windfarm reinstatement area I	Area of 638 m^2 to be infilled to a depth of 1.07 m.	108	576	684
Existing windfarm reinstatement area J	Area of 322 m^2 to be infilled to a depth of 0.71 m.	55	174	229
Total		**13,089**	**57,604**	**70,693**

The re-use of the excavated peat has taken a conservative approach in terms of the areas that will be possible to restore and the depths achievable.

8.3 Peat Restoration Areas

The peat on Site is generally in good condition, however it is experiencing erosion in some locations and will continue to do so without intervention. There are a number of areas where the erosion is spreading in a dendritic pattern due to erosion from water, wind and freeze/thaw resulting in the transfer of peat particles away from the Site and into watercourses. Some of these have bare peat at the base of the gullies, but it is more common at the margins where peat banks have collapsed exposing the bare peat and is resulting in continued gradual degradation.

It is considered that the best approach to restore these areas is by infilling with translocated peat. Where the base of the eroded areas has vegetated, this should be carefully lifted off and set to one side and the excavated peat from other areas of the Site placed in each eroded area and the vegetated layer reinstated on top. If necessary, damming structures may be required to assist stabilisation and in a number of locations the Proposed Development infrastructure will also act as a down gradient barrier to retain this peat.

There are some clear advantages with this type of restoration such as:

- The excavated peat can be placed directly into the restoration areas so there is no storage required where the peat be subject to weathering, dewatering and erosion;
- There are a number of areas of peat restoration identified across the Site so the distances from excavation areas to restoration areas can be minimised; and
- Although not extensive, the degraded peat areas on site will continue to erode as the bare peat surface areas increase so reversing this trend is desirable.

The following areas have been identified from Site surveying and aerial imagery interpretation (Aerial Imagery Microsoft Bing Maps reprinted with permission from Microsoft Corporation). The restoration depths have been determined from measurements taken on Site. These measurements are presented in the images below as depths relative to the surrounding peat level. They are summarised in **Table 6** below. Information on peat condition has been included based on Site observations and a peatland condition assessment (PCA) undertaken by Alba Ecology Ltd (see **Volume 4,Technical Appendix 6.3**). It is noted that there are more areas available for restoration than have been identified and these can be included in the restoration plan if appropriate.

Table 6: Estimated peat restoration areas

Restoration Type	Restoration Summary	Acrotelm volume (m^3)	Catotelm volume (m^3)	Total Volume (m^3)
Peat restoration area 1	Degraded peat area of 2,025 m^2 to be infilled to a depth of 1.3 m	344	2,288	2,632
Peat restoration area 2	Degraded peat area of 8,343 m^2 to be infilled to a depth of 0.5 m	1,418	2,753	4,171
Peat restoration area 3	Degraded peat area of 6,715 m^2 to be infilled to a depth of 0.8 m	1,142	4,230	5,372
Peat restoration area 4	Degraded peat area of 880 m^2 to be infilled to a depth of 1 m	150	730	880
Total		**4,047**	**13,388**	**17,435**

Area 1:

Restoration depth measurements for this area were estimated to be 1.3 m. Around 80 % of the marked area was visually estimated suitable for restoration from the aerial photography giving an area of 2,025 m^2 suitable for infilling.

Area 1 straddles a boundary between mapped actively eroding and modified peatland. Peat hags up to 1.3 m in depth and extensive bare peat were observed within this area.

Area 2:

Restoration depth measurements for this area were estimated to be 0.5 m. Around 80 % of the marked area was visually estimated suitable for restoration from the aerial photography giving an area of 8,342 m^2 suitable for infilling.

Area 2 straddles a boundary between mapped actively eroding and modified peatland. Erosional features were present across the area following dendritic patterns of erosion. The area was observed to be fairly dry and largely reestablished with graminoid dominated vegetation, with some bare peat present around actively eroding features.

Area 3:

Restoration depth measurements for this area were estimated to be 0.8 m. Around 70 % of the marked area was visually estimated suitable for restoration from the aerial photography giving an area of 6,715 m^2 suitable for infilling.

Area 3 straddles a boundary between mapped actively eroding and lightly modified peatland. It comprises a shallow, wide erosional gully. Graminoid dominated vegetation has re-established the base of the gully with bare peat present and the actively eroding side walls of the gully.

Area 4:

Restoration depth measurements for this area were estimated to be 1 m. Around 70 % of the marked area was visually estimated suitable for restoration from the aerial photography giving an area of 880 m^2 suitable for infilling.

Area 4 lies within areas of mapped actively eroding and modified peatland. Peat exposures of around 1 m depth were observed where most recent peat erosion had occurred at the boundaries of the area.

8.4 Net Peat Balance

The total volume of peat predicted to be excavated does not exceed the intended reuse volume, so no disposal of excess peat off-site is expected for the final layout of the Proposed Development.

The excavated peat volumes and reuse volumes are summarised in **Table 7** below.

Table 7: Net Peat Balance

	Acrotelm volume (m^3)	Catotelm volume (m^3)	Total Volume (m^3)
Excavated Peat (including bulking factor)	8,050	35,814	43,864
Peat Reuse	13,089	57,604	70,693
Peat Restoration	4,047	13,388	17,435
Total Balance	**-9,086**	**-35,178**	**-44,264**

Based on the figures and reuse strategy presented, it is expected that there will be a potential for more peat to be reused on the Site than the volume excavated for the Proposed Development. There are more peat restoration areas than those that have been identified and further areas could be included in the peat restoration plan with additional detail refined on site.

9 Handling Excavated Materials

9.1 Excavation

The following methodologies for excavation of peat are recommended:

- Areas of peat within the footprint of any excavation will have the top layer of vegetation stripped off as turf, prior to construction by an experienced specialist contractor. When excavating areas of peat, the excavated turfs should be kept as intact as possible. Often it is easiest to achieve this by removing large turfs up to 500 mm in order to keep the peat intact;
- These turfs should either be transferred immediately for use in peat restoration areas or stored adjacent to the construction area such that they remain moist and viable (see temporary storage below). Excavated turfs should be as intact as possible so as to minimise carbon losses. Stacking of turfs will be avoided in order to best preserve the viability of the vegetation layer;
- Peat will then be removed, stored separately and kept damp (Carbon and Water Guidelines, 2012);
- Excavated soils and turfs will be handled so as to avoid cross contamination between distinct horizons and allow reuse potential to be maximised;
- Mineral soil and aggregate will be kept separate from peat or peaty soils in order to avoid contamination (which could result in a change in chemical or hydrological properties in the peat, reducing the likelihood of successful reinstatement on placement);
- Prior to any excavations, the PC will produce a detailed Method Statement identifying where and how excavated peat will be used in reinstatement works. Specific requirements for the excavation, handling, storage and reinstatement of peat will be outlined in this Method Statement. The PC will consider potential impacts on downstream hydrological receptors, and also the potential for instability issues with the excavated material;
- Care will be taken when stripping and removing topsoil and peat turfs and appropriate storage methods used on site, i.e. excavated material will be stored in separate horizons and vegetation rich top layers will be stored vegetation side up; and
- Classification of excavated materials will depend on their identified re-use in reinstatement works. At this site it is anticipated that the material to be excavated will comprise peat (which may be sub-divided into turf, acrotelm and catotelm/amorphous), peaty soils and mineral soils (subsoil and topsoil).

9.2 Temporary Storage

Following excavation, peat will be required to be temporarily stored before reuse. Excavated peat should be stored in stockpiles to minimise carbon losses while being stored.

Areas of temporary storage required for peat will be identified in the Construction Method Statement (CMS) taking into account constraints and mitigation requirements identified in further pre-construction investigations. This will describe any intended drainage, pollution prevention and material stability mitigation measures that may be required. The following general guidelines will apply:

- The appropriate temporary storage areas for excavated peat will be as close to the excavation as practicable;
- Temporary peat storage will be identified alongside the proposed tracks and existing infrastructure. (**Figure 8.11** in **Volume 3a** of the EIA Report). These will determined to be suitable areas for temporary excavated peat storage as the ground conditions will need to suitable for some loading, the peat slide risk is low, outside of the main

watercourse buffers and where gradients are low. This will be supplemented by smaller peat storage areas near to each section of infrastructure where the peat is extracted and to be re-used to minimise the handling and transportation requirements;

- The design and location of stockpiles, including incorporated drainage elements, will be agreed with the ECoW and Geotechnical Consultant / Geotechnical Clerk of Works prior to excavation works commencing;
- Temporary peat storage areas should be located so that erosion and run off is limited, leachate from the material is controlled, and stability of the existing peatland in the vicinity is not affected;
- Excavated material is to be stockpiled at least 50 m away from watercourses. This will ensure that any wetting required on stored peat does not runoff and discharge into adjacent watercourses;
- Any edges of cut peat that may remain exposed, or areas of peat excavation on steep slopes, will be covered with geotextile or similar approved. This will allow re-turfing and re-vegetation and reduce erosion risks;
- Suitable storage areas are more appropriately sited in areas with lower ecological value and low slopes. Cleared areas of forestry are preferred to areas of higher ecological value or areas close to watercourses;
- Where possible, excavated turfs will be stored adjacent to the construction area such that they remain moist and viable;
- Temporary peat storage should be in locations where the water table can be kept artificially high;
- An up-gradient cut off ditch should be installed around the edge of the storage bund in order to collect up-gradient surface water runoff and divert water runoff from eroding the toe of the bund;
- It is desirable to keep haul distances of excavated peat as short as possible, and as close as possible to intended re-use destinations, to minimise plant movements in relation to any earth works activity, including peat management, in order to minimise the potential impact on the peat structure. It is important that temporary storage is safe and keeps the material suitable for its planned reuse;
- The handling and storage of peat will seek to ensure that excavated peat does not lose either its structure or moisture content. Peat turfs require careful storage and wetting and to be maintained to prevent drying out and subsequent oxidisation to ensure that they remain fit for re-use;
- Stockpiling of peat should be in large volumes, taking due regard to potential loading effects. Piles should be bladed off at the side to minimise the available drying surface area.
- Higher piles are more likely to become dewatered, while smaller piles expose a greater area to evaporation. Reducing mound size may also increase likelihood of erosional losses as particulate organic carbon;
- Stockpiles should be battered so as to limit instability and erosion and should be bunded or covered using impermeable material. The bunds should extend to a level above the toe of the stockpiled material to provide restraint to surface runoff;
- When planning the temporary storage areas any additional disturbance areas should be minimised; and
- Transport of peat to temporary storage areas, restoration areas or designated spoil areas will be by low ground pressure vehicles to avoid excessive compaction of the peat.

10 Reuse of Peat in Infrastructure Restoration

10.1 Bare Peat

There are a number of important methodologies regarding the exposure of bare peat including:

- The amount of time any bare peat will be exposed will be minimised to preserve its integrity;
- The phasing of work should be carried out to minimise the total amount of exposed ground at any one time. By stripping turf and replacing as soon as reasonably possible after peat has been re-distributed there will be minimal areas of bare peat;
- Any peat areas on steep ground or that remains partially bare will be covered using geotextile or a similar method to stop erosion;
- Any areas of bare peat, where vegetation is not re-growing, will be seeded with a seed mixture obtained from the existing habitat. Stock exclusion in these areas will continue until vegetation is properly established;
- The re-vegetated areas will be monitored; and
- Areas where full recovery is complete will have fences removed.

This approach has been shown to be effective on other peat sites and the turfs re-grow quickly both establishing vegetation and consolidating the peat.

10.2 Infrastructure Re-use

Peat reuse around and within infrastructure areas is an important aspect of the Proposed Development, as it allows an opportunity to maintain the integrity of the excavated peat, enhance habitats and create new habitats. This will be undertaken through:

- The PC will be required to provide appropriate plant for undertaking all reinstatement works such that no unnecessary disturbance of the ground surface occurs. In order to minimise disturbance and damage to the ground surface, any mobile plant required for reinstatement works will be positioned on constructed access tracks, hardstanding areas or existing disturbed areas wherever possible. The use of a long reach excavator for excavations and reinstatement works is preferable as it enables sufficient room to allow initial side casting and subsequent pulling back of turfs over reinstated peat or soil;
- Excavated catotelm or amorphous peat will only be used in restoration works where the topography allows straight forward deposition with no pre-treatment or containment measures and without risk to the environment. Suitable scenarios may be present in those disturbed areas where natural topography profile allows such use. A fibrous layer of acrotelm and turf will be placed above any catotelm or amorphous peat reinstated;
- Reinstatement of vegetation will be focused on natural regeneration utilising peat vegetated turfs. To encourage stabilisation and early establishment of vegetation cover, where available, peat turfs (acrotelmic material) or other topsoil and vegetation turfs in keeping with the surrounding vegetation type will be used to provide a dressing for the final surface;
- Any reinstatement and re-profiling proposals will consider, and mitigate against, identified significant risks to environmental receptors. In particular, in areas of replaced peat, water management will be considered in the PC's Construction Method Statements to ensure that as far as possible an appropriate hydrological regime is re-established within areas of disturbance. Particular attention will be paid to maintaining hydrological continuity and preventing the creation of preferential subsurface flow paths (for instance within backfilled cable trenches);

- When cutting the track, the vegetation layer (approx. 500 mm thick) will be undercut and rolled back. A geotextile layer will then be installed on the side slopes of the track immediately after track construction to prevent erosion. The undercut vegetation layer will then be rolled back over the verge of the installed track. Through careful management of upgradient water and track cambers to shed water to the peat on the verges the level of saturation can be maintained;
- Peat placed on track verges should gently taper in to the adjacent land form, with the peat blocks placed snugly together and the edge of the peat placed furthest from the track should be firmed in to the adjacent ground to form a seal, in order to minimise water loss through evaporation;
- Track edges and passing places would be reinstated post construction through the removal of capping material and the reuse of peat turfs. Where peat turfs are used to reinstate track edges this will be done in a manner to ensure works tie in with the surrounding topography, landscape and ground conditions;
- The design and construction of tracks on peat shall be done in such a way so as to reduce impacts on the existing peat hydrology at the site. The built track should allow for the transmittance of water, so natural drainage can be maintained as far as possible; and
- Where possible drains will be blocked as soon as they are no longer required to reduce impacts on adjacent peat habitat and allow recovery of the drains to peat habitat.

11 Summary

Four rounds of peat probing totalling 5,032 peat probes and associated cores has been completed between April 2022 and October 2023 to obtain a detailed understanding of peat variability, depth and characteristics at the Site.

The infrastructure has avoided peat where possible, with peat (probe depths >0.5 m) present at 35 % of the Proposed Development infrastructure and peat with probe depth so of >1.0 m present across 11% of the Proposed Development infrastructure.

The total volume of excavated peat associated with the infrastructure footprint included the full earthworks has been calculated as 43,864 m^3 comprised of 8,050 m^3 of acrotelmic peat and 35,814m^3 of catotelmic peat.

The potential reuse of excavated peat has been calculated based on SEPA guidance, and an extensive peat restoration program in order to improve the condition of the peat across the Site and reverse the current process of peat loss and degradation. In addition, the removal of the existing wind farm infrastructure will also allow the reinstatement of peat within those footprints. The total potential reuse exceeds the peat excavation volumes with a reuse and restoration volume of 88,128 m^3, comprised of 70,992 m^3 of catotelmic peat and 17,137 m^3 of acrotelmic. This is an excess of about 44,264m^3.

Based on the peat depth, characteristics and distribution investigations undertaken across the development area and the final layout, a surplus of peat is not expected to be generated by the Proposed Development. All estimated excavated peat is planned for re-use for restoration work of both the existing wind farm, the new temporary infrastructure and areas of degraded peat across the Site during the construction and post-construction phases of the Proposed Development.

Further investigations will be undertaken prior to works commencing to confirm peat depth, distribution and characterisation. The additional survey data will be used to inform any micro-siting, and potentially further minimise the volume of peat extracted. The peat management plan will be further updated using the additional survey data and detailed infrastructure design. The detailed PMP will be approved by Argyll and Bute Council in consultation with SEPA as part of the CEMP pursuant to the imposition of a planning condition.

The PC will maintain a record of actual peat volumes excavated and reinstated and the subsequent peat re-use to compare the predicted and actual peat volumes. This record during the construction, operation, decommissioning and restoration phases of the Proposed Development will be made available for review by regulators as and when required.

12 References

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