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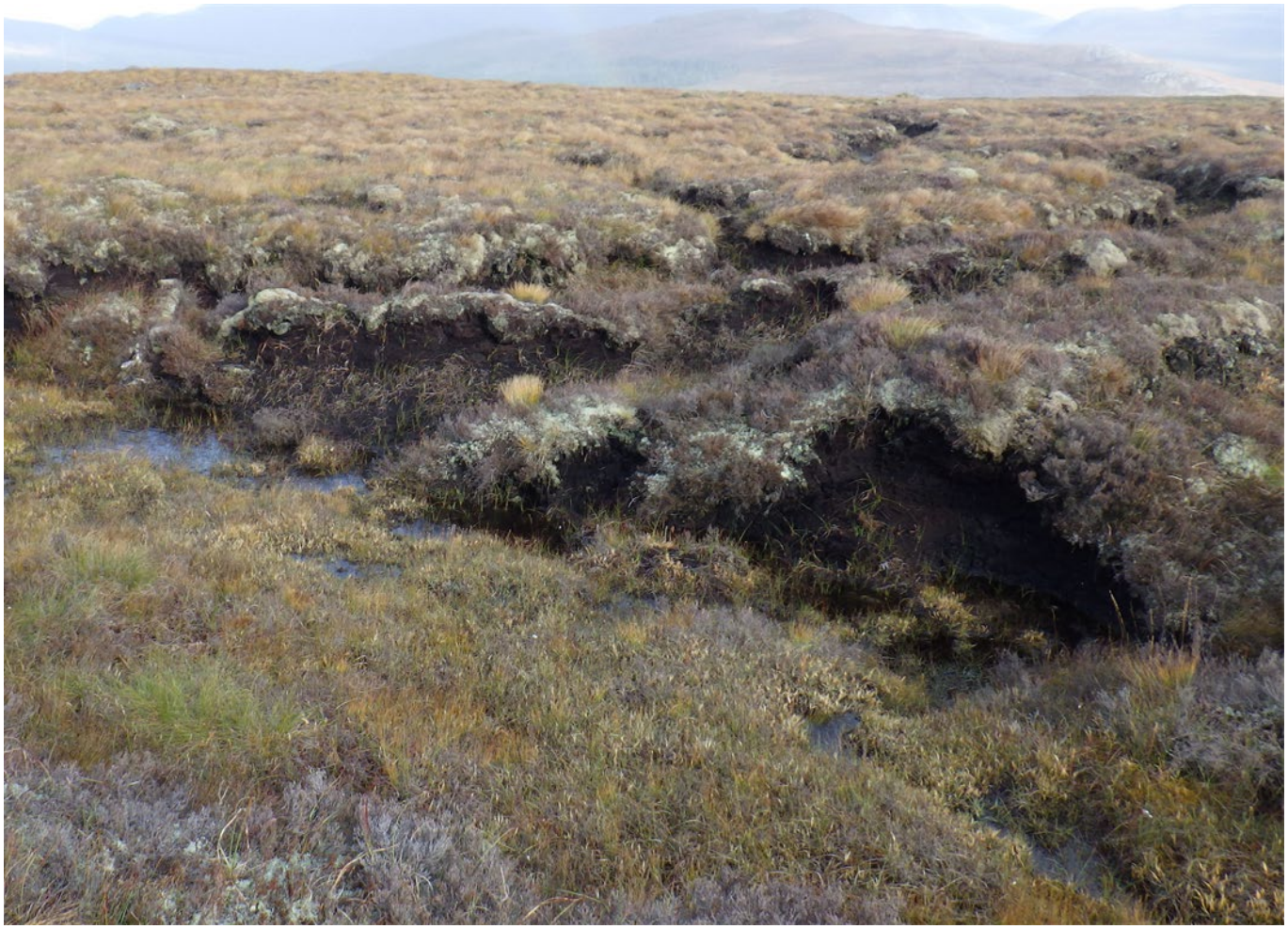
CRUACH CLENAMACRIE WIND FARM

APPENDIX 9.2 OUTLINE PEAT MANAGEMENT PLAN



Voltalia UK

Cruach Clenamacrie Wind Farm: Outline Peat Management Plan

Technical Appendix 9.2

2760751-P9.2 (02)

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RSK GENERAL NOTES

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1 INTRODUCTION

1.1 This report provides an Outline Peat Management Plan for the Cruach Clenamacrie Wind Farm (hereafter referred to as the Proposed Development) and associated development infrastructure.

1.2 This report forms a Technical Appendix to the Environmental Impact Assessment Report (EIA Report) for the Proposed Development and should be read in conjunction with this document. It has been produced to address the requirements for excavation of peat and peaty soils during the Proposed Development's construction process.

1.3 This report will consider total volumes of peat that need to be excavated and will set out options for reuse of the excavated material. Guidance on management and handling of excavated peat and soils will be provided.

1.4 Within this Technical Appendix the following definitions will be used:

- 'Proposed Development' refers to the Cruach Clenamacrie Wind Farm and associated infrastructure;
- 'Site' refers to the area within the Application Boundary within which the Proposed Development lies; and
- 'Application Boundary' refers to the extent of the area relating to the Section 36 application.

Site Description

1.5 The Proposed Development is located 5km south-east of Connel and 7km east of Oban within the Argyll and Bute Council area. The Site is bordered by Fearnoch Forest to the east, south and west. Access would be gained via the A85, to the north of Dailnamac. The A85 is the key transport route connecting the area with the central belt of Glasgow-Stirling-Edinburgh. The nearest settlement is Fearnoch, located approximately 800m north-west of the Site access track.

1.6 The land in the Site generally slopes northwards from higher ground in the west and south-east. The area is a characterised by craggy upland with rocky outcrops, areas of oak-birch woodland and several lochs in low-lying hollows. The terrain is hummocky with steep ground in places most noticeably the summit of Cruach Clenamacrie in the west.

Development Proposals

1.7 The Proposed Development infrastructure would include:

- Six wind turbines, with a maximum tip height of 200m, and associated hardstandings;
- Substation;
- Construction compound containing car parking area, control building, PCS units, switch gear unit, battery units;
- New, upgraded and floating access tracks;
- Drainage infrastructure;

- Underground cables;
- Two borrow pits; and
- Temporary laydown areas.

Full details of the Proposed Development design are provided in **EIA Report Chapter 5**: **Project Description.**

Aims

1.8 This report aims to undertake a review of all available peat depth information for the Site and immediate environs, and to provide a series of calculations determining the estimated volumes of peat that will require excavation in order to allow the Proposed Development to progress. Options will be provided to address the use of the excavated peat within necessary restoration of the Proposed Development's infrastructure. A series of good practice measures relating to peat and soil handling and storage will also be provided.

Assessment method

1.9 The assessment has involved the following stages:

- desk study;
- peat depth surveys and infrastructure design;
- volume calculations for excavation and reuse; and
- peat handling and storage

2 PEAT CONDITION

Developments on peat

Definition of peat

2.1 Scotland's Soils (2024) classifies peat as:

> *An accumulation of partially decomposed organic material, usually formed in waterlogged conditions. Peat soils have an organic layer more than 50cm deep from the soil surface which has an organic matter content of more than 60%.*

2.2 Organic soils which are 50cm or thinner can also support peatland vegetation and as a result are also considered within Scotland's broader peatland system in Scotland's National Peatland Plan (NatureScot, 2015). These are often described as 'peaty gleys' or 'peaty podzols', reflecting key aspects of the underlying soil. Peaty soils have a higher plant fibre content and are less decomposed than peat.

2.3 Active peatland typically consists of two layers: the surface layer (acrotelm) and the deeper layer (catotelm). The acrotelm contains the living vegetation and consists of living and partially decayed plant material. It typically has a low but variable hydraulic conductivity and allows some though-flow of water within the plant material. The underlying catotelm is denser, with a very low hydraulic conductivity, and is formed from older decayed plant material. The catotelm varies in structure, in some areas retaining a proportion of fibrous material and in other areas being more humified and amorphous. The degree of humification typically increases with depth.

2.4 Underneath the peat-forming layers, the basal substrate can be a mineral soil, a superficial deposit such as glacial material, or bedrock. There may be a transition zone through a mineral-rich peaty layer at the base of the peat, although this is usually no more than 5cm in thickness

Importance of peat

2.5 Peatland forms a key part of the Scottish landscape, covering more than 20% of the country's land area, and forming a significant carbon store (Scotland's Soils, 2019). In addition, peatland is an internationally important habitat.

2.6 Active and healthy peatlands develop continuously, removing carbon dioxide from the atmosphere and storing it within the peat soil. Peatland protection and restoration form key parts of the Scottish Government's Climate Change Plan, which targets restoration of 250,000ha by 2030 (Scottish Government, 2018). As of March 2020, over 25,000ha of peatland had begun restoration, and in 2020 the government announced a £250 million ten-year funding package to support the restoration of degraded peat (Scottish Government, 2020). Restoration will need to be conducted at a faster pace to reach targets.

2.7 It is therefore important that developments in peatland areas recognise the importance of peatland as a habitat and carbon store. Careful planning of developments, and careful infrastructure design, can remove or minimise the disturbance of peat that would be needed to allow the development to proceed

Development Setting

Topography and Geomorphology

2.8 The Site is characterised by upland moor with irregular and undulating landforms. The highest point within the Site is the summit of Cruach Clenamacrie at 273m above Ordnance Datum (AOD). The wider area is characterised by similarly undulating areas of relatively high ground, notably Deadh Choimhead to the south at 383m AOD.

2.9 While most of the hill slopes within the Site are relatively gentle, steeper areas are present, notably along the south and south east of the Application Boundary. Generally, the main Site area slopes northwards from higher ground in the west and south-east. The Site is located in the headwaters areas of the River Lonan, Allt Nathais and Lusragan Burn, meaning that there are a number of small watercourses scattered throughout the Proposed Development.

2.10 The Site access runs through an area of commercial forestry managed by Forestry and Land Scotland. The Site access drops from approximately 190m AOD in the west to 30m AOD at the Site entrance, which is the lowest area within the Application Boundary.

Habitats and Vegetation

2.11 Majority of the Proposed Development and surrounding area to the north west of Site is underlain by blanket bog and wet heath. Surrounding the remaining areas of the Site are commercial conifer plantations managed by Forestry and Land Scotland (FLS).

2.12 The vegetation within the Site has been surveyed using the National Vegetation Classification (NVC) method. The main communities present are:

- M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire;
- M15 *Scirpus cespitosus-Erica tetralix* wet heath;
- M25 *Molinia caerulea-Potenrilla erecta* mire; and
- W17 *Quercus petraea-Betula pubescens-Dicranum majus* dry woodland.

2.13 Other habitats present within the Site are smaller, have more patchy area coverage or are part of mosaic habitats.

Hydrology

2.14 Catchment data have been derived from the Flood Estimation Handbook Web Service (CEH, 2024).

2.14.1 The Proposed Development is situated across three catchment areas: the Lusragan Burn, River Lonan and Allt Nathais. The majority of the Site is located within the Allt Nathais catchment, while smaller sections of the Site are within the Lusragan Burn catchment in the north-west and the River Lonan catchment in the south-west. Catchment areas are shown in **Figure 9.6**.

Allt Nathais Catchment

2.15 The Allt Nathais catchment has a total area of 18.5km^2 and drains 64.63% of the land within the Application Boundary.

2.16 The Allt Nathais is the smallest of the three catchments but drains the largest area within the Application Boundary, including turbines T3, T4, T5 and T6, the construction compound area, substation and Site access. This catchment contains three of the eight watercourses located within the Application Boundary. These watercourses all combine to form the Eas nan Meirleach, a tributary to the Allt Nathais. The Allt Nathais flows directly into Loch Etive approximately 1.2 km north of the Application Boundary.

2.17 An additional unnamed watercourse, which runs parallel to the south-eastern margin of the Application Boundary, forms a tributary to the Allt na Seabhaig. The Allt na Seabhaig is also a tributary to the Allt Nathais.

River Lonan Catchment

2.18 The River Lonan Catchment has a total area of 20.7km^2 and drains 19.23% of the land within the Application Boundary.

2.19 The River Lonan catchment drains the south and south-west of the Site. Three of the watercourses near the western end of the Site named Allt Fròga ch, Allt Oishnean and an unnamed tributary drain this area and flow south-west towards to the River Lonan.

2.20 The River Lonan then flows west into Loch Nell approximately 2.9 km south-west of the Application Boundary.

Lusragan Burn Catchment

2.21 The Lusragan Burn Catchment has a total area of 21.8km^2 and drains 16.14% of the land within the Application Boundary.

2.22 The Lusragan Burn catchment drains the north-west of the Site. The remaining unnamed watercourse is a tributary, located just north of Cruach Clenamacrie, which flows northwards into the Allt an t-Sean-achaidh and onwards into the Black Lochs. The outflow from the Black Lochs via the Lusragan Burn eventually reaches the sea at Connel, just upstream of the Falls of Lora, approximately 4.5 km north-west of the Application Boundary.

Catchment statistics

2.23 Catchment data have been derived from the Flood Estimation Handbook Web Service (CEH, 2024).

2.24 The Proposed Development is situated across three catchment areas: Lusragan Burn, River Lonan and Allt Nathais. The majority of the Site is located within the Allt Nathais catchment, while smaller sections of the Site are within the Lusragan Burn catchment in the north-west and the River Lonan catchment in the south-west. Catchment areas are shown in **Figure 9.6**.

2.25 The catchment wetness index (PROPWET) is the proportion of time that soils in a catchment are wet (i.e. when soil moisture deficits are less than 6mm). For all catchments PROPWET is 0.79, indicating that soils in the Site are wet for 79% of the time. The area has a baseflow index (BFI HOST 19) of between 0.31 and 0.39, indicating a low input of groundwater baseflow to surface watercourses. The standard percentage runoff (SPR HOST) is 50-53%, indicating the percentage of rainfall on-Site which is converted into surface runoff from rainfall events. this represents a relatively high runoff risk where soils

have limited capacity to store rainfall and/or slow infiltration rate and will quickly saturate, leading to rapid runoff.

Peat Characteristics

2.26 Most of the Site consists of a patchwork of peaty soils and blanket peat which varies in depth and distribution across the Site as a result of the underlying topography and hydrological setting. Approximately a quarter of the Site is underlain by peat >0.5m deep, and tends to be in the lower-lying areas of the Site. There are also pockets of very deep peat, up to 7m, spread sporadically throughout the Site.

2.27 There are no areas of extensive deep peat (2.5m deep or more), with the identified pockets less than 200m in length. These deeper pockets are scattered throughout the Site and have a very irregular distritbution. This is reflective of the undulating topography of the Site where wide areas of waterlogged ground are largely absent and conditions required to produce extensive blanket peat are not present.

2.28 Three sections along the main access into the Site have deep peat, although all are relatively confined areas.

2.29 There is evidence of modification to peatland areas within the Site from livestock and deer grazing. Commercial forestry also provides further evidence of modification to the peatland areas in and around the Site.

Peat at the Proposed Development

2.30 The Site was identified to include areas of peat at an early stage, as indicated by superficial geology and soils mapping for the region. A Phase 1 survey was conducted on a 100m grid in February and March 2022 to inform a feasibility study for the Site. The peat survey results were used to inform infrastructure design, in order to minimise incursion into areas of peat as far as possible.

2.31 A Phase 2 peat depth and condition survey was undertaken by WRc in November 2023 for areas of proposed infrastructure and access tracks. Additional follow up surveys were undertaken in February, May and June 2024.

2.32 The combined peat depth data were used to generate a detailed map of soils and peat depths for the Site. This is provided in **Figure 9.5**, with further details provided in **Chapter 9 Hydrology, Hydrogeology, Geology and Peat**. Measured peat and soil depths range from 0 (bedrock at surface) to 7.53m. A total of 1,740 peat depth measurements have been recorded for the Site.

2.33 The intention has been to avoid areas of peat where possible, and to minimise incursion into peat where it has not been possible to avoid it altogether. Approximately 76% of the Proposed Development infrastructure including drainage is underlain by peaty soil or topsoil no greater than 0.5m deep, with 24% of infrastructure underlain by peat.

Peat Excavation Volumes

2.34 The tables below set out the estimated volumes of peat that need to be excavated in order to allow construction of the Proposed Development to proceed. The calculations

are provided per 'scheme element', as totals for each element type, and as an overall total. Each set of calculations provides subdivision into 'acrotelm' and 'catotelm'.

2.35 For the purpose of these calculations, the acrotelm has been assumed to form the uppermost 0.5m where peat is present. Acrotelm is known to vary in thickness, but it is recommended that peat turves are excavated to approximately 0.5m where possible, including the uppermost part of the catotelm, to promote quicker regeneration of disturbed areas following reinstatement.

2.36 Volumes of peaty soil and topsoil have not been included, in line with the definition of peat quoted above. Soils would also require excavation but are less sensitive than peat to both excavation and restoration.

2.37 **Table 9.2.1** provides peat volumes that require excavation in order to allow construction of the access track network and associated drainage. The proposed new access track width will be approximately 5.5 m when completed. For calculation purposes, a working corridor of 12 m has been used, to allow for inclusion of trackside drainage, cable trenching and vehicle movements during construction.

Table 9.2.1: Peat excavation volumes for access tracks

Scheme element	Acrotelm (m^3)	Catotelm (m^3)	Total (m^3)
Main Access track to Site	379	698	1,077
New track in E half of Site from Main Access track to turning for T4, including access to substation and T3, T5 and T6	5,354	7,698	13,052
New track in W half of Site from turning to T4 to T1 and T2	4,423	5,747	10,170
Total	**10,156**	**14,143**	**24,229**

2.38 **Table 9.2.2** provides peat volumes that require excavation in order to allow construction of the turbine foundations, hardstanding areas and crane pads, plus associated drainage. Calculations have been made for each turbine base plus necessary hardstanding areas, making use of peat depth data for the relevant turbine and hardstanding footprint. Where turning heads are present directly adjacent to areas of turbine hardstanding these have been combined.

Table 9.2.2: Peat excavation volumes for turbines, hardstandings and associated drainage

Scheme element	Acrotelm (m^3)	Catotelm (m^3)	Total (m^3)
T1 hardstanding	1,501	2,582	4,083
T2 hardstanding	1,126	418	1,544
T3 hardstanding	151	269	420
T4 hardstanding	919	1,044	1,963
T5 hardstanding	643	371	1,014
T6 hardstanding	927	857	1,784
Total	**5,267**	**5,541**	**10,808**

2.39 **Table 9.2.3** provides peat volumes that require excavation in order to allow construction of additional infrastructure, such as a construction compound, substation, layby and borrow pits, plus associated drainage. Calculations have been made for each footprint, making use of peat depth data for the relevant infrastructure element.

Table 9.2.3: Peat excavation calculations for other infrastructure elements

Scheme element	Acrotelm (m^3)	Catotelm (m^3)	Total (m^3)
Compound Area	536	1,057	1,593
Substation	216	316	532
Layby	0	0	0
Borrow Pit 1	234	210	444
Borrow Pit 2	269	108	377
Total	**1,255**	**1,691**	**2,946**

2.40 A summary of the total peat volumes is provided in **Table 9.2.4**.

Table 9.2.4: Summary of estimated peat excavation volumes

Scheme element	Acrotelm (m^3)	Catotelm (m^3)	Total (m^3)
Access tracks	10,156	14,143	24,229
Turbines and hardstanding	5,267	5,541	10,808
Other infrastructure elements	1,255	1,691	2,946
Total	**16,678**	**21,375**	**37,983**

Peat Reuse

2.41 The guidance document *'Developments on Peatland: Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste'* (Scottish Renewables/SEPA, 2012) identifies a number of reuse options for excavated peat within wind farm developments. These have all been tested in practice and found to be effective, if undertaken with care and appropriate handling of the peat.

Dressing-off Edges of Constructed Infrastructure

2.42 Excavated peat can provide a valuable means for dressing-off and reinstating the slopes and edges of constructed infrastructure. This should be undertaken as soon as practicable after construction and should be managed such that a suitable tie-in to the surrounding topography is created as part of the process. This has a twofold purpose – to reduce the visual effect of the infrastructure and to retain as much of the existing habitat as possible.

2.43 A secondary part of this would involve full reinstatement of elements of infrastructure only required for the construction phase, principally temporary laydown areas. Temporary parts of the turbine hardstandings may also be reinstated following installation of the turbines, if appropriate.

Verge Reinstatement on Track Sections

2.44 For cut and floating tracks, the track margins can be reinstated to form a verge slightly raised above the track level. This acts as a partial visual screen for the track network. Well-designed track margins also help to direct track surface runoff into trackside drainage, where it can be redirected for treatment.

2.45 Where existing tracks require upgrading, new works are typically focused on one side of the track and reinstatement would also usually be focused on the track side with new works. Reinstatement of the already-existing track verge can be undertaken where the ground has been left raw or where previous reinstatement has not been effective.

Borrow Pit Restoration

2.46 Excavated peat has been used successfully in borrow pit restoration, where the method of reuse and the final restoration profile is in keeping with overall habitat and environmental reinstatement objectives. Care must be taken to ensure that no residual risks from pollution of the environment or harm to human health results from the restoration. Unconsolidated peat may be the most suitable material for this purpose, depending on the local situation. Fencing of the restored area may be appropriate if required to exclude grazing in order to encourage vegetation recovery or to allow stabilisation of the surface until vegetation cover has established.

2.47 For the Proposed Development it is considered that use of excavated peat in borrow pit restoration would be appropriate for both Borrow Pits 1 and 2, to a shallow depth in keeping with current soil and peat variation in these areas.

Peatland Restoration

2.48 Peat can provide valuable material for ditch and peat channel blocking, as part of a peatland restoration plan on blanket bog. In areas with wider ditches, it may be appropriate to use saturated or unconsolidated peat behind dams in order to speed up the restoration process and regeneration of associated vegetation.

Peat Reuse Volumes

2.49 Calculations have been made to determine where excavated peat can usefully be reused within the Proposed Development, for the purposes of reinstatement and restoration. Estimated volumes for reuse are provided in **Table 9.2.5**, subdivided by different reinstatement and restoration methods that are appropriate for the Proposed Development.

Table 9.2.5: Estimated peat volumes for different reuse options

Reuse option	Acrotelm (m^3)	Catotelm (m^3)	Total (m^3)
New access track	12,900	3,200	16,100
Construction compound, substation hardstanding and layby area	700	100	800
Turbine hardstandings	2,500	600	3,100
Borrow pit 1	600	2,700	3,300
Borrow pit 2	400	1,700	2,100
Peatland restoration	0	13,000	13,000
Totals	**17,100**	**21,300**	**38,400**

2.50 All figures in **Table 9.2.5** have been rounded down to the nearest 100m^3 to make allowance for the uncertainties present within the figures.

2.51 It has been assumed that limited catotelmic peat would be reused for dressing-off edges and reinstatement of construction infrastructure. In areas with natural hollows, use of some catotelmic peat may be appropriate but it is likely in practice that most of this work would make use of acrotelmic peat.

2.52 It has been assumed that all track verge reinstatement would use majority acrotelmic peat with up to 20% catotelmic peat where suitable locations are identified. Catotelmic peat may be suitable for use in areas with natural hollows; this would be supervised by the Environmental Clerk of Works (ECoW).

2.53 As much of the access track to Site is already existing, it has been assumed that no additional peat would be required for reinstatement. It is likely in practice that some peat could be reused effectively in these areas.

2.54 It has been assumed that limited reinstatement of borrow pits would be undertaken, up to a maximum depth of 0.6m, using approximately 80% catotelmic and 20% acrotelmic peat. This work would be supervised by the ECoW.

2.55 Reinstatement and dressing-off of constructed infrastructure have assumed a maximum depth of 0.6m and a maximum width of 2.5m from the infrastructure track margin, to be varied in practice as best suits the local ground conditions. This work would be supervised by the ECoW.

2.56 The majority of the catotelmic peat and any acrotelmic peat not required elsewhere would be targeted for use in peatland restoration. Some areas potentially suitable for peatland restoration, notably ditch blocking and some small areas of bare peat, have been identified within the Site. Other areas under the same landownership have been identified for habitat enhancement including ditch blocking and peatland restoration work; the remaining excavated peat would be targeted to those areas where best outcomes are likely. All peatland restoration and habitat enhancement work would be supervised by the ECoW.

3 PEAT HANDLING & STORAGE

Peat Excavation

3.1 During construction of the Proposed Development infrastructure, the Contractor would adopt the following good practice guidelines with relation to peat excavation:

- Where peat conditions are suitable, peat turves would be excavated as intact blocks of the uppermost 0.5m including the vegetated surface acrotelm layer and the upper part of the catotelm.
- In areas where peat conditions do not allow clean removal of peat turves, the upper layer of peat would be removed as divots or mulch rather than as turves. Careful handling would help to keep the vegetated blocks largely the right way up.
- Underlying peat would be extracted as close to intact as is feasible within the constraints of the area. Remoulding of the peat by the excavator would be kept to a minimum.
- Excavated materials would be classified depending on their composition, and each type would be stored separately. Anticipated material classes are: peaty soils and topsoil, subsoil, acrotelmic peat, catotelmic peat, mineral soil, and rock.
- Excavated peat would be transported as short a distance as practicable for either reuse or temporary storage, in order to minimise loss of structure during transport.

3.2 Peat and soil stripping can be adversely affected by wet weather. The following 'stop' conditions are recommended to guide any peat and soil stripping activity (**Table 9.2.6**; CH2M & Fairhurst, 2018).

Table 9.2.6: Recommended 'stop' conditions (CH2M & Fairhurst, 2018)

'Stop' rule	Requirements
High intensity rainfall	Rainfall during construction greater than 10 mm per hour
Long duration rainfall	Rainfall in the preceding 24 hours greater than 25 mm
7-day cumulative rainfall (1)	Preceding 7 days of rainfall greater than 50% of the monthly average
7-day cumulative rainfall (2)	Preceding 7 days of rainfall greater than 50 mm

3.3 Monitoring of rainfall for 'stop' conditions would require access to a suitable local source of data, such as the Met. Office's monitoring station at Dunstaffnage to allow identification of these conditions being exceeded in order to allow appropriate action to be taken.

Temporary storage

3.1 Temporary storage of peat should be avoided or minimised wherever possible. This is best achieved by transporting the peat to an allocated reuse location as soon as practicable following excavation. This would help to retain its structural integrity as far as possible, would minimise volumes of peat requiring storage and would help to prevent the peat drying out.

3.2 The ECoW would maintain a schedule of reuse and restoration areas and would direct whether excavated peat should be stored or transported directly to a suitable reuse location. Immediate reuse is likely to be more practicable in the later stages of construction.

3.3 Soils, peat turves/divots and peat would all be stored separately. The following outline good practice would be applied to all areas of peat and soil storage:

- Excavated materials would not be stored immediately above excavation faces, in order to prevent overburden-induced failure.
- Local drainage lines, areas of very wet ground and locally steep slopes would be avoided for excavated material storage, including peat.
- Careful handling of upper-layer peat divots, from areas where peat turves cannot be excavated, would help to retain vegetated blocks the right way up.
- Catotelmic peat would be stored separately from vegetated peat blocks, in mounds up to 1m high.
- Limited smoothing or 'blading' of stockpiled catotelmic peat, topsoil and subsoil would help to shed rainwater and prevent ponding of water on the stockpile.
- During periods of dry weather, light spraying of the temporary peat stores would be applied in order to minimise drying.
- All temporary storage areas for excavated peat and soils would be at least 50m from any watercourse.
- Runoff from stored peat and soils would be managed to avoid impacts to habitats and watercourses. Where necessary, drainage control measures such as use of silt fences would be put in place.
- Monitoring of peat storage areas may be required during wet weather or snowmelt. This would be undertaken by the Contractor, with findings reported to the ECoW.

3.4 Areas identified as potentially suitable for peat and soil stockpiles are detailed in **Table 9.2.7** and shown on **Figure 9.2.1**. Storage areas would be assessed for suitability during construction works and priority would be given to areas near to the material source; key constraints would be slope, proximity to watercourses and sensitive habitats.

Table 9.2.7: Potential areas for peat and soil stockpiles

Location	Grid reference
Along the upgraded access track south of borrow pit 2	19391, 72992
Along new access track, south-east of borrow pit 1	19451, 73027
West of turbine T6	19498, 72990
South-east of turbine T3	19656, 73020
West of turbine T4	19712, 73155

Reinstatement and Restoration

3.5 The following principles would be applied in all situations where peat is being reinstated:

- Reinstatement of peat turves and vegetated peat divots would ensure that surface re-vegetation is encouraged as early as possible. Vegetated peat must only be used for surface layer reinstatement.
- Re-seeding of any significant areas of bare peat would be undertaken with a suitable species mix appropriate to the surrounding habitats. Careful planning of reinstatement should minimise areas of bare peat by appropriate distribution of vegetated peat turves and divots.
- Grazing by livestock and deer may need to be prevented in sensitive areas, by selective use of fencing, until re-vegetation has become established.
- In the event that stored peat becomes dewatered or desiccated, this material would not be exposed in the upper part of any reinstatement area in order to minimise any further character loss. Storage of excavated peat would be minimised in order to prevent or limit dewatering and desiccation.

Updated Peat Management

3.6 The Outline Peat Management Plan presented here would be updated and refined as necessary with further site-specific detail once ground investigation results become available. This would involve recalculation of peat volumes requiring excavation and storage. Location-specific reinstatement would be directed by the ECoW, taking account of specific local variation in topography and natural ground conditions. The Construction Peat Management Plan, to be prepared post-consent, would be a live document, with revisions added as necessary during the construction process.

4 SUMMARY

4.1 This Outline Peat Management Plan provides an assessment of the likely volumes of peat that would require excavation during the construction of the Proposed Development, and of the volumes of peat that can legitimately be used in reinstatement of development infrastructure. The assessment has included consideration of all proposed infrastructure that would require construction and excavation work where peat would require removal.

4.2 The assessment indicates that there would be a balance in peat volumes and that all peat excavated for construction would be able to be reused within the Proposed Development.

4.3 There are more potential opportunities for peat reuse than the calculated excavation volumes of total peat. This allows targeting of excavated peat to areas best suited for reuse and reinstatement of peat; this process would be guided by the ECoW to ensure the best outcome for the Site and for peatland restoration areas.

4.4 Approximately 44% of the excavated peat would be acrotelmic, which provides good opportunities for promoting re-establishment of peatland vegetation around construction areas. Sensitive reinstatement would help to minimise the visual impact of the construction works as well as minimising the habitat loss from construction.

5 REFERENCES

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