# Appendix 8.6: Outline Habitat Management Plan

# Creachan Wind Farm

## Appendix 8.6: Outline Habitat Management Plan

PREPARED FOR

RWE

DATE
December 2025

REFERENCE
0730493



## DOCUMENT DETAILS

| The details entered below are automatically shown on the cover and the main page footer. PLEASE NOTE: This table must NOT be removed from this document. | |
|---|---|
| DOCUMENT TITLE | Creachan Wind Farm |
| DOCUMENT SUBTITLE | Appendix 8.6: Outline Habitat Management Plan |
| PROJECT NUMBER | 0730493 |
| DATE | December 2025 |
| VERSION (delete field if unneeded) | 03 |
| AUTHOR | LS |
| CLIENT NAME | RWE |

## DOCUMENT HISTORY

| | | | | ERM APPROVAL TO ISSUE | | |
|---|---|---|---|---|---|---|
| VERSION | REVISION | AUTHOR | REVIEWED BY | NAME | DATE | COMMENTS |
| 01 | 0 | LS, ST | PW | SP | August 2025 | Daft |
| 02 | 0 | LS, ST | PW | SP | December 2025 | Client Comments |
| 03 | 0 | LS, ST | PW | | December 2025 | Final |

SIGNATURE PAGE

# Creachan Wind Farm

## Appendix 8.6: Outline Habitat Management Plan

0730493



**L[redacted] S[redacted]**
Managing Consultant



**S[redacted] T[redacted]**
Senior Consultant



**P[redacted] W[redacted]**
Technical Director



**S[redacted] P[redacted]**
Partner

Environmental Resources Management Ltd
2nd Floor Exchequer Court

33 St Mary Axe

London

United Kingdom

EC3A 8AA

T: +44 20 3206 5200

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## ACRONYMS AND ABBREVIATIONS

| Acronym | Description |
|---|---|
| DMP | Deer Management Plan |
| EIA | Environmental Impact Assessment |
| ERM | Environmental Resources Management |
| HBRG | Highland Biological Recording Group |
| HMP | Habitat Management Plan |
| HMPA | Habitat Management Plan Area |
| LU | Livestock Unit |
| MDA | Main Development Area |
| NS | NatureScot |
| NPF4 | National Planning Framework 4 |
| NVC | National Vegetation Classification |
| oHMP | Outline Habitat Management Plan |
| oPMP | Outline Peat Management Plan |

| Acronym | Description |
|---|---|
| PRTA | Peatland Restoration Target Area |
| RSPB | Royal Society for the Protection of Birds |
| SEPA | Scottish Environment Protection Agency |
| THC | The Highland Council |
| WTZ | Wind Turbine Zone |

# 1. INTRODUCTION

This appendix provides an outline Habitat Management Plan (oHMP) and which summarises the proposed habitat management measures recommended to deliver mitigation and enhancements outlined in **Chapter 8: Ecology** and **Chapter 9: Ornithology** of the Environmental Impact Assessment (EIA) Report (**Volume 2**) for the proposed Creachan Wind Farm (the Proposed Development).

This appendix also outlines related ecological and ornithological pre-construction, construction and operational monitoring proposals.

The following terminology will be used throughout this appendix:

- **Development Site**: all land within the proposed red line boundary that will support the Proposed Development (as shown on Figure 1, Annex);
- **Proposed Development**: the whole physical process involved in relation to Creachan Wind Farm including all necessary infrastructure and temporary works areas;
- **Wind Turbine Zone (WTZ)**: the area of land within the Development Site, within which the turbines were originally planned to be sited (as shown on Figure 1, Annex A) and that has guided the surveys to inform the design;
- **Main Development Area (MDA):** the area of land within the Development Site, within which the final turbines and associated infrastructure are located (as shown on Figure 1, Annex A), which has been significantly reduced from the original WTZ; and
- **Habitat Management Plan Area (HMPA):** the area of land within the Development Site within which the HMP prescriptions will take place (as shown on Figure 1, Annex A).

The oHMP as presented below aims to provide a summary of the broad ecological aims and objectives of the detailed HMP. It is anticipated that the detailed HMP will be written and developed in full following consent, and in consultation with Naturescot (NS), The Highland Council (THC), the landowner and other relevant consultees.

To ensure the HMP aims are successfully achieved, the detailed HMP will be implemented throughout the operational phase of the Proposed Development and kept as a 'live' document; with frequent review and amendment, where deemed necessary.

The aims, objectives and prescriptions of the HMP are outlined below.

## 1.1 PRIORITY PEATLAND HABITAT

In accordance with NS guidelines[1], peat soils in Scotland are defined as soil with a surface peat layer with more than 60 % organic matter and of at least 50 cm thickness. Priority Peatland is peatland that corresponds to the below National Vegetation Classification (NVC) communities and shows evidence of being undisturbed and actively forming peat.

[1] Nature Scot (November 2023) Advising on peatland, carbon-rich soils and priority peatland habitats in development management | NatureScot. Available online at: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management. Accessed July 2025

**Priority Peatland communities that should be completely avoided**

- **M1** *Sphagnum denticulatum*, **M2** *Sphagnum fallax/S. cuspidatum* and **M3** *Eriophorum angustifolium:* bog pools which occupy waterlogged depressions, shallow pools and erosion channels on bogs.

**Priority Peatland communities where impacts have the potential to raise issues of national interest**

- **M17** *Trichophorum-Eriophorum* and **M18** *Erica-Sphagnum*: these are communities of wetter peat and have species such as *Molinia caerulea*, *Trichophorum cespitosum*, *Myrica gale* and *Erica tetralix*. The most characteristic Sphagna are *S. papillosum* and *S. capillifolium*, and, in M18, *S. magellanicum*. Species such as *Drosera rotundifolia*, *Dactylorhiza maculata*, *Narthecium ossifragum* and *Potentilla erecta* are common in the wetter M17 and M18 bogs.
- **M19** *Calluna-Eriophorum*: a community that occurs on drier substrates and has more *Vaccinium myrtillus*, *V. vitis-idaea*, *Empetrum nigrum* and *Sphagnum capillifolium*. M19 has a darker, tussocky sward and is the more common type of bog at moderate to high altitudes. Species commonly occurring in this community include *Rubus chamaemorus* and *Melampyrum pratense*.

**Priority Peatland communities that are unlikely to raise issues of national interest**

- **M20** *Eriophorum vaginatum*: this is a degraded form of M19 where the heather and most of the Sphagna have been eliminated by heavy grazing, repeated burning and/or atmospheric pollution.
- **M15** *Trichophorum-Erica*, **M16** *Erica-Sphagnum* and **M25** *Molinia-Potentilla*: these are classed as blanket bog when they are on deep peat, as they are almost always a replacement for the original bog vegetation following unfavorable management such as burning on too short a rotation followed by heavy grazing.

Bog habitats are extensive across the Development Site and consist predominantly of blanket bog, wet modified bog, dry modified bog, bare peat and wet dwarf shrub heath habitats (see **Chapter 8: Ecology and Nature Conservation**, **Figure 8.2a**).

Priority Peatland NVC communities recorded on the Development Site include M2, M3, M15 (where peat depth exceeds 0.5 m), M16 (where peat depth exceeds 0.5 m), M17, M19, M20 and M25 (where peat depth exceeds 0.5 m), see **Chapter 8: Ecology and Nature Conservation, Figure 8.2b**.

However, only a subsection of these habitats (30.4%) are classed as Priority Peatland that is undisturbed and peat forming – recorded as near natural - with the majority of the blanket bog recorded in the Development Site actively eroding or modified, as well as both wet and dry modified bog habitats (see **Appendix 8.5**, **Figure 1**).

Near natural Priority Peatland in the Development Site totals 361.8 ha, with only 30.7 ha (8.5% of total Priority Peatland) found in the MDA.

# 2. HABITAT MANAGEMENT PLAN: AIM

The HMP will aim to compensate for the direct and indirect loss of peatland habitats as a result of the Proposed Development and increase the spatial extend and biodiversity value of Priority

Peatland habitat resource within the Development Site by restoring damaged and degraded peatland habitats from the long-term existing management effects.

Existing guidance indicates that peatland restoration should deliver compensation for both direct and indirect impacts. Relevant guidance and plans include, but are not limited to, NS's National Peatland Plan[2], Scottish Government's Climate Change Plan[3] and NS's '*Advising on peatland, carbon-rich soils and Priority Peatland habitats in development management*[1]', which has been developed to ensure compliance with the National Planning Framework 4 (NPF4)[4] for development proposals on peatland, carbon-rich soils and Priority Peatland.

In addition, to satisfy Policy 3 of NPF4 (the need to demonstrate significant biodiversity enhancement), additional measures beyond restoration are required for enhancement for Priority Peatland. NS guidance advises that this enhancement should be quantified as additional restoration in the region of 10 % of the extent of the Priority Peatland habitat impacted within the Development Site.

Gradual degradation of peatlands results in the slow release of carbon into the atmosphere, a contributor to global warming. As a result, the Scottish Government's Climate Change Plan has identified that "annual peatland restoration would need to be far higher than the current 20,000 hectare (ha) annual target", emphasizing the need for an increase in peatland restoration throughout Scotland. Restoring peatlands within the Peatland Restoration Area would aim to reduce the impacts to global warming and positively contribute to the Scottish Government's aim.

## 2.1 EXTENT OF RESTORATION

The Habitat Management Plan Area (HMPA) encompasses the Development Site boundary with the exception of an area to the very north. The HMPA is shown on **Figure 1, Appendix A**. ERM completed a preliminary Peatland Condition Assessment[5] (PCA) of the Development Site in accordance with NS[3] and the Heather Trust guidance[6]. This initial assessment broadly mapped the location and type of peatland erosion features and, using peat depths where possible and surface water mapping, assigned a peatland condition classification to all peatland habitats recorded within the Development Site.

The PCA identified an area of 802.8 ha within the HMPA consisting of areas recorded as actively eroding, modified or drained peatland (i.e. excluding near natural peatland) which has the potential for peatland restoration (see **Figure 1, Appendix 8.5: Peatland Condition Assessment**).

Of these 251.2 ha has been identified as available Peatland Restoration Target Area (PRTA) based on a number of constrains consideration. Details about the constrains review are provided in **Chapter 7: Ecology EIAR Volume 2** and associated **Figure 7.8.**

[2] NatureScot (2015a) Scotland's National Peatland Plan: Working for our future. Available online at: https://www.nature.scot/doc/scotlands-national-peatland-plan-working-our-future. Accessed July 2025.
[3] Scottish Government (2020) Update to Climate Change Plan: Securing a Green Recovery on a Path to Net Zero 2018-2032. Available online at: https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/. Accessed July 2025.
[4] Scottish Government (2023) National Planning Framework 4. Available at: https://www.gov.scot/publications/national-planning-framework-4/pages/3/. Accessed July 2025.
[5] ERM. (2025) *Creachan Wind Farm Technical Appendix 8.5: Peatland Condition Assessment*.
[6] The Heather Trust (2023). Peatland Condition Assessment. Available online at: Guidance-Peatland-Action-Peatland-Condition-Assessment-Guide-A1916874.pdf. Accessed March 2025.

The Applicant proposes a 1:4 compensation ratio for peatland restoration, along with a 10% enhancement of Priority Peatland to be implemented in the Peatland Restoration Target Area (PRTA). Targeting Peatland within the PRTA gives the highest certainty of success, will help to restore an area greater than that which was lost, restore equivalent habitat to that which will be lost as a result of the Proposed Development and restore hydrological and ecological connectivity.

The final restoration area will be confirmed in the final detailed HMP developed post-consent. Following consent, indeed, the detailed design will be undertaken which will confirm the actual footprint of the development and the areas of peatland disturbed. In addition, more detailed site surveys will be carried out in the HMPA which will inform the final Peatland Restoration Area as well as the specific type of peatland restoration measures, methods and materials to be used. This would include the completion of ornithological surveys and where appropriate consultations with third party recording groups to ensure habitat management proposals consider the presence and distribution of sensitive bird species, and where required suitable working restrictions are put in place, in line with good practice[7].

The aim of the HMP is to increase the ecological value of degraded peatland habitats within the HMPA by recovering damaged and degraded peatlands from the long-term effects of drainage, grazing and burning. This will be achieved through the following objectives;

- Objective 1 – Reduce the drying and degradation of bog habitats and encourage reestablishment of bog vegetation through rewetting
- Objective 2 – Reduce the erosion and encourage revegetation of area of erosion features and bare peat.
- Objective 3 – Reduce grazing pressures to allow for recovery of peatland habitats and bog vegetation
- Objective 4 – Improve habitat for moorland bird species.

Objectives 1 to 4 will be achieved through the application of peatland restoration prescriptions. This oHMP outlines the key peatland restoration prescriptions that are considered at this stage likely to be most appropriate to the Development Site.

Due to the variety of peatland feature types and landscape characteristics present within the HMPA, the application of restoration prescriptions will vary by location, to ensure the most appropriate and practical restoration techniques are implemented.

The specific application of these prescriptions will be confirmed and further detailed in the HMP which will be developed post consent and following the confirmation of the final Peatland Restoration Area (the area where prescriptions will take place) and the estimated Restoration Footprint (the extent of restoration following the implementation of prescriptions). The HMP will be informed by a further site assessment, as necessary.

[7] NatureScot (2024) Standing Advice for Planning Consultations – Birds. Available online at: https://www.nature.scot/doc/standing-advice-planning-consultations-birds Accessed December 2025.

## 2.2 HABITAT MANAGEMENT PLAN: OBJECTIVES

### 2.2.1 OBJECTIVE 1: REDUCE DRYING AND DEGRADATION OF BOG HABITATS AND ENCOURAGE RE-ESTABLISHMENT OF BOG VEGETATION THROUGH REWETTING

#### 2.2.1.1 PRESCRIPTION 1.1: DRAINAGE DITCH BLOCKING

In order to achieve the HMP objective via the prescription of raising water table levels across restoration areas and obtaining a relatively flat topography, drains will need to be dammed to reduce water loss and in-filled to create a flat surface on which blanket bog vegetation can re-establish.

The preliminary Peatland Condition Assessment identified extensive networks of drainage ditches throughout the HMPA with 50 ha of the assessed peatland habitats being classified as 'drained'. It is therefore anticipated that these areas will be suitable for drain blocking using peat dams or composite dams. Where drainage features are too wide or flows too great to accommodate damming other prescriptions will be applied, such as those outlined in Prescription 1.2.

The final techniques for drain blocking will depend on the availability of the excavated peat.

Other restoration measures that may be suitable are also outlined below.

**Peat Dams**

Where practicable, peat dams will be installed using wet, structured catotelmic peat excavated during the construction of the Proposed Development. The use of this peat will aid the formation of a watertight dam; unlikely to be successfully achieved by the use of cracked peat.

As catotelmic peat has limited transportation and storage potential, it is advised that peat damming will need to occur during the construction phase, if peat is to be reused for damming purposes.

Acrotelmic peat (comprising vegetation and/or a natural seedbank) will be placed on top of each dam to prevent the peat drying out and to aid regeneration of the peat dam. The peat dam will be constructed higher than the surrounding ground level to allow for any potential peat shrinkage.

Where practicable, dams should be installed at the narrowest point of drainage channels up to 1.5 m wide over deep peat, and at a spacing of no more than 15 m apart, to maximise water retention. Dams should span the full width of the oxidised (sunken) cross-section of the drainage channel to prevent continued seepage and/or erosion of peat around the dam feature. Dams should be slightly higher than the fall line of the drainage channel to prevent overtopping; and constructed with a longer spur on the downhill side to encourage water to seep into adjoining peatlands (rather than creating pools of water). Dams should be installed to a minimum depth of 50 cm to establish a good seal with the dam feature and care should be taken to tamp down peat dams with an excavator bucket to make sure it is well consolidated.

Donor turves required to dress the peat dam should be gathered from a donor site located both upstream and upslope of the dam. Vegetation from the drains themselves should be left intact. Turves should be taken from shallow borrow pits adjacent to (but not too close to) drainage channels. Borrow pits should be reinstated.

The HMP should be finalized before construction of the Proposed Development to maximise the opportunity for peat re-use for peatland restoration.

**Composite Dams**

Composite dams (plastic piling dams) should be used where flow rates are high, peat depth is shallow and/or drainage channels are more than 1 m wide/deep. Hand dug dams should be avoided, as these typically provide inadequate levels of consolidation and may exacerbate erosion.

Where practicable, plastic piling should be installed at the narrowest points along sections of drainage channel up to over 1.5 m wide over deep peat, and at a spacing of no more than 15 m apart, to maximise water retention. Plastic piling should be driven at least 25 cm into solid peat or clay, typically located below the 50 cm of soft peat in the base of the drain (i.e. minimum depth of 75 cm). Wings of plastic piling should span the full width of the oxidised (sunken) cross-section of the drainage channel.

As a rule of thumb, the distance plastic piling should extend into adjoining peat should be at least the same as the channel width itself. The tip of plastic piling should be slightly higher than the fall line of the drainage channel to prevent overtopping. Plastic piling keyed into adjoining peat will prevent continued seepage and/or erosion of the dam feature and encourage water to seep into adjoining peatlands. Should drainage channels be incised down to the mineral layer, stone dams should be used.

#### 2.2.1.2 PRESCRIPTION 1.2: REDUCING DRAINAGE FLOW RATE THROUGH GULLIES

This prescription is similar to drain blocking. However, for a gully feature it is usually more appropriate to slow the flow of water down, rather than hold it back, due to the very high flow rates that gully systems can experience. To reduce peak flows in gullies any drains that feed into the gullies should be restored or remedied first. Flow can be managed through the installation of surface bunds or through the installation of stone dams[8].

Surface bunds are < 50 cm high and typically span a wider feature to slow and break up the flow of water through a gully system, or are applied on areas of bare peat in order to reduce erosion. The purpose of installing a bund is to catch sediment and thus reduces peat loss and facilitates revegetation, enabling the creation of new peat-forming habitats. Surface bunds can be made from range of materials such as: turves/peat, coir logs, wood (untreated round wood, untreated sawn wood), peat filled geo-textile sacks, heather bales or mineral (gravel/finer material found in the gullies)[8].

Stone dams are one of the last available options in very deep gullies with high flows of water (max 2 m wide). They can also be used where mineral bunds were found to have washed away. Stone dams are used when gully erosion is down to the mineral layer (i.e., where there is no alternative), or where peat is less than 50 cm deep. Similar to bunds the intention is to trap sediment, thus enabling growth of vegetation, slowing the flow of water and reduction of erosive forces, and ultimately raising of the water table in the peat adjacent to the gully[8]. It is unlikely that stone dams will be required, however they are a possible contingency option.

[8] NatureScot (2024) Peatland ACTION - Technical Compendium - Restoration - 6 Flow

### 2.2.2 OBJECTIVE 2: REDUCE THE EROSION AND ENCOURAGE REVEGETATION OF AREA OF EROSION FEATURES AND BARE PEAT

#### 2.2.2.1 PRESCRIPTION 2.1: Regrading of Peat Hags and Gullies

The exposed edges of a peat hag and gullies are sensitive to continual erosion from wind, water, frost-heave, livestock and wild deer. When combined with flatter areas of bare peat, these create extensive areas of heavily degraded eroding peatland, which limit the ability for vegetation to re-colonise. Steep eroding faces require stabilisation before vegetation can then be re-established in these areas.

The peat hags and gullies (where blocking is not possible) would be regraded where necessary in order to remove the vertical face, cover any bare peat with vegetation and reduce the drying effect on the surrounding peat. It is anticipated that most regraded faces could be revegetated using vegetation obtained locally, however, where existing vegetation is not sufficient to cover the regraded face, the area may require additional measures to revegetate exposed peat (e.g. seeding).

Peat hags/gullies should be restored by stripping the existing vegetation, re-grading the vertical face to a stable slope of between 30°-35°, and then reinstating the stripped vegetation on the newly profiled slope.

Once the cause of continued erosion has been addressed, regrading should take place using the following method, or similar good practice:

- Roll back the vegetation, preserving the root structure.
- The underlying peat should be regraded to between 30°-35°, extending to between 40°-45° where local site conditions require it.
- The vegetation should then be rolled back and compacted to cover the newly profiled slope.
- Where practicable, hags extending beyond 2 m in depth should be re-profiled from both the crest and toe of the slope to ensure there is sufficient vegetation to prevent erosion from starting again.
- Turves should be keyed-in using compaction to bridge the break-in-slope at top of the hag (to prevent slumping) and minimising disruption to the toe (to minimise impacts on flow channels).
- Donor turves required to dress regraded peat hags should be gathered from a donor site located on the upslope of the hag feature. Turves should be taken from shallow borrow pits adjacent to (but not too close to) peat hags. Borrow pits should be reinstated.
- If there are insufficient turves to dress regraded slopes, or to reinstate borrow pits, bare peat should be treated with heather brash, seed and fertiliser, following the specifications outlined below.

Drainage gullies should be regraded concurrently with damming (above) to reducing further water loss and remove erosion features (and bare peat). Graded banksides make the overall profile of drainage gullies shallower, making them safer for livestock and game in the locality.

#### 2.2.2.2 PRESCRIPTION 2.2: REVEGETATION OF BARE PEAT

Bare peat is a highly unstable surface, which can be rapidly stripped down to sub-soil or bedrock by wind and water, as well as poaching from livestock and wild deer. This rapid loss of peat has the potential to release large quantities of carbon into the atmosphere.

Water flow and wind erosion across exposed bare peat should be reduced by breaking the area of bare peat or micro-erosion into smaller cells using bunds made from turf-covered peat or heather bales; the area is then covered with heather brash to stabilise the bare peat. The application of grass seed establishes quickly to bind the peat surface into a stable turf that then forms the basis for other moorland species to colonise into.

The area of bare peat should be divided up into smaller units approximately 10 m x 10 m in size (maximising the use of existing vegetation) to create barriers across all small gullies and exposed areas using either: low peat bunds or heather bales covered with turf. Bryophyte-rich heather brash should be cut from a suitable donor site, which should be as local to the restoration site as possible and spread over the bare peat after the bunds are installed. The brash should be spread as soon as possible after cutting and should not be left in bags for longer than 2 weeks.

Brash is typically delivered in builders' dumpy bags; 1 ha of bare peat with brash spread to a depth of 5 cm requires approximately 780 bags. Brash can be spread manually using forks or by specially equipped very low ground pressure vehicles. Once the heather brash is spread, granulated lime should be applied in late February or early March 2 – 6 weeks prior to adding grass seed. This raises the pH to a level that is less hostile to germinating seeds.

### 2.2.3 OBJECTIVE 3: REDUCE GRAZING PRESSURES TO ALLOW FOR RECOVERY OF PEATLAND HABITATS AND BOG VEGETATION

Modified peatland accounted for approximately 398.2 ha within the HMPA. These areas contained limited bog-forming vegetation species, such as sphagnum mosses and cotton grasses. The preliminary Peatland Condition Assessment noted burning and livestock activity, including poaching and grazing, which appeared to have directly diminished bog-forming vegetation species.

#### 2.2.3.1 PRESCRIPTION 3.1: LIVESTOCK GRAZING MANAGEMENT

Other than deer, there are no other grazing pressures on the habitat as the holding is not stocked with any livestock. It is not anticipated livestock grazing management will be an option based on current land use, however, if applicable to the HMPA at the time of the finalization of the detailed HMP, livestock grazing management measures will be considered for the HMP, in consultation with landowners, in so far as reasonably practicable, to support the aim of peatland restoration.

Overgrazing from livestock can be managed in several ways. One option is through proper maintenance of stock density. Bogs and fens may have a range of different habitats. The overall stocking density is determined by the proportions of habitats in the area to be managed. In general, it is best to graze bog habitats in conjunction with adjacent semi-improved/improved grassland which gives the stock a choice of forage, helps maintain stock condition and helps prevent the bog being more than lightly grazed.

Good practice guidance[7] provides suggested stocking densities for a variety of habitats found within Priority Peatland landscapes. The figures below are given as a general guide.

- Open bog ..... 0.02 LU/ha/yr
- Fen/swamp ..... 0.1 LU/ha/yr
- Wet purple moor grass heath ..... 0.25 LU/ha/yr
- Semi natural grassland ..... 1 LU/ha/yr

One livestock unit (LU) is equivalent of one cow and 0.15 ewes.

Timing is also a factor in livestock management; the ground conditions within the Development Site will dictate when stock should be introduced and removed. Peatland restoration sites can be grazed during periods of drier weather in any month of the year.

Winter grazing should be limited due to the low food value of winter vegetation and the increased requirement for supplementary feeding. Guidance gives indicative seasonality for grazing dependent on the vegetation and livestock type in question. Finally, supplementary feeding can be adopted to prevent damage of overgrazing to peatland restoration efforts; however, it is caveated that this is best kept to areas within the peatland edges as it can cause damaging enriching of the peatland.

Whilst grazing management can be applied as a restoration technique in its own right, some form of grazing management will be required across the Restoration Footprint to ensure the success of the manual techniques, as overgrazing could prevent peatland vegetation from becoming established and damage habitats that have been modified for restoration.

#### 2.2.3.2 PRESCRIPTION 3.2: DEER MANAGEMENT PLAN

Extensive areas of the HMPA are suitable for deer grazing, and this is likely to have at least in part led to the notable degradation of peatland habitats. The land where the HMPA is located is currently ran as a sporting estate and is already part of the local Deer Management Group. With agreed control targets in place. To ensure the success of habitat management, mitigation of the impacts of deer on peatland habitat restoration, and any consequent implications on local deer management, will be appropriately considered within the HMP, and a separate Deer Management Plan (DMP) would be produced if required.

Following consent, any required updates to the DMP would be produced in consultation with the landowner, NS and the local Deer Management Group.

### 2.2.4 OBJECTIVE 4: IMPROVE HABITATS FOR MOORLAND SPECIES

Whilst no specific prescription is required to achieve this objective, the successful implementation of the above prescriptions, and thus peatland restoration as a whole, will likely result in an increase in the extent of suitable breeding and foraging habitat within and around the MDA for breeding moorland bird species recorded during baseline surveys including breeding waders (dunlin (*Calidris alpina*), golden plover (*Pluvialis apricaria*), and greenshank (*Tringa nebularia*)), merlin (*Falco columbarius*), hen harrier (*Circus cyaneus*) and golden eagle (*Aquila chrysaetos*).

Although, attracting moorland birds into the HMPA has the potential to increase collision risk where restoration takes place in close proximity to the turbine layout, it is considered that the benefits of creating new breeding habitat and reducing the effects of predation are likely to

outweigh any increase in collision risk to these species. It is considered that this will potentially allow birds to establish new breeding territories, not only within the Development Site but (for some species) in adjacent habitats in the wider area as well.

### 2.2.5 ADDITIONAL CONSIDERATIONS

#### 2.2.5.1 MANAGEMENT OF PEAT DURING CONSTRUCTION

In addition to adhering to the above prescriptions, peat will be managed in accordance with best practice methods as detailed in the outline Peat Management Plan (oPMP), throughout construction of the Proposed Development. Through careful design, the volume of peat to be excavated as a result of the Proposed Development has been reduced.

The oPMP outlines measure to ensure peat is handled in accordance with best practice guidance including Scottish Renewables, Scottish Environmental Protection Agency[9] (SEPA) and the Scottish Government[10].

Where necessary, peat will be stored in suitable locations prior to re-use. Peat storage and re-use will be undertaken in accordance with best practice guidance.

# 3. MONITORING

## 3.1 VEGETATION MONITORING

Vegetation monitoring with be undertaken to assess the success of Objectives 1-3

Peatland vegetation monitoring will be undertaken following the completion of Peatland Restoration to identify and record trends in vegetation change throughout the lifetime of the Proposed Development (40 years) which will determine the success of Peatland Restoration. Vegetation monitoring will take place following commissioning of the Proposed Development, with monitoring undertaken during operational years 1-3, 5, 10 and 15. The frequency of monitoring would be agreed as part of the finalised HMP and approved with NS and THC.

### 3.1.1 STRAIGHT-LINE TRANSECTS PEATLAND VEGETATION MONITORING

Vegetation monitoring will comprise fixed straight-line transects located throughout the Peatland Restoration Area. The exact number and location of these transects will be determined following completion of the construction phase and the implementation of the peatland restoration activities. Fixed straight-line transects will be walked once during the optimal vegetation monitoring period for blanket bog habitats (May - September, inclusive).

### 3.1.2 FIXED QUADRAT VEGETATION MONITORING

In addition to fixed straight-line transects, fixed quadrats and fixed-point photography will also be used to record changes to vegetation. Fixed quadrats, measuring 2 m x 2 m, will be located along each straight-line transect. For each quadrat, plant species will be identified and percentage cover and maximum height of each plant species, and peat depth identified.

[9] Scottish Environmental Protection Agency (2010) SEPA Regulatory Position Statement - Developments on Peat. National Waste Policy Unit, 4p.
[10] Scottish Government, NatureScot, SEPA (2017) Peatland Survey. Guidance on Developments on Peatland

### 3.1.3 FIXED-POINT PHOTOGRAPHY

In addition to the above, photographs will also be recorded at each fixed quadrat to monitor changes in vegetation and condition.

## 3.2 ORNITHOLOGICAL MONITORING

In order to monitor how key bird species are affected by the Proposed Development and HMP proposals, ornithological monitoring will take place during and post-construction and will include the measures outlined below. The below proposed survey schedules and methodologies are to be consulted on with NS, the Royal Society for the Protection of Birds (RSPB) and the Highland Biological Recording Group (HBRG) resulting in the production of an Ornithological Monitoring Plan.

In line with NS guidance[11], the below monitoring prescriptions will take place annually during construction, and after the Proposed Development becomes operational, during years 1-3, 5, 10 and 15, with the requirement for further surveys to be determined based on previous survey results.

### 3.2.1 MOORLAND BIRD MONITORING

Moorland bird monitoring with be undertaken to assess the success of Objective 4.

In order to monitor the uptake of peatland restoration measures by key bird species, ornithological monitoring would be undertaken during years 1-3, 5, 10 and 15 unless otherwise agreed in consultation with NS, the Royal Society for the Protection of Birds (RSPB) and the Highland Biological Recording Group (HBRG).

### 3.2.2 COLLISION REPORTING

Any collisions identified on-site during monitoring, or incidentally, will be recorded via the Applicants existing reporting procedures which includes a requirement to report to NS through their bird strike or collision incident recording form[12] and emailed to collision_records@nature.scot.

This collision reporting will be completed as part of the Applicant's internal procedure for managing bids and bats strikes.

## 3.3 REPORTING AND REVIEW

Annual reporting of operational monitoring results will be carried out following every year in which monitoring is carried out. The Annual Monitoring Report will summarise the monitoring results and provide high level recommendations for further monitoring. All reports will be submitted to THC and NS.

Every five years from the commencement of the HMP, a detailed Monitoring Review Report will be submitted documenting the success of the prescriptions. Within this report, modifications to the HMP and associated prescriptions may be recommended where deemed necessary. These modifications will be agreed all relevant parties and landowner. Once agreed by all relevant

[11] NS (2009) Guidance on Methods for Monitoring Bird Populations at Onshore Wind Farms. Guidance Note.
[12] NatureScot (2025) Bird strike or collision incident recording form. Available online at https://www.nature.scot/doc/bird-strike-or-collision-incident-recording-form [Accessed August 2025]

parties, the modifications will be incorporated into an updated HMP which will be submitted to the Planning Authority for approval and thereafter will supersede the previous version.

# APPENDIX A FIGURES

FIGURE 1 - PEATLAND RESTORATION TARGET AREA

Site Boundary

Main Development Area

Habitat Management Plan Area

Modified, Drained and Actively Eroding Peat - Not Accessible for Restoration

Peatland Restoration Target Area (Modified, Drained and Actively Eroding Peat - Accessible for Restoration)

0 500 1,000 1,500

Metres

N

| | |
|---|---|
| SCALE: See Scale Bar | VERSION: A01 |
| SIZE: A3 | DRAWN: RW |
| PROJECT: 0730493 | CHECKED: ST |
| DATE: 12/15/2025 | APPROVED: RP |

**Figure 1**
**Peatland Restoration Target Area**
**Technical Appendix 8.6**
**Creachan Wind Farm**

ERM

PROJECTION: British National Grid

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US
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**ERM's Glasgow Office**

2nd Floor
144 West George St.
Glasgow
G2 2HG

T - 0141 221 9997

**www.erm.com**