

Vale of Leven Wind Farm

Outline Biodiversity Enhancement Management Plan

Additional Information Report Appendix 6.1

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1 INTRODUCTION

This Outline Biodiversity Enhancement Management Plan (OBEMP) describes the proposed habitat and conservation management measures in relation to Vale of Leven Wind Farm (hereafter referred to as the 'Proposed Development').

This OBEMP is a revised and updated version of the OBEMP which was originally submitted as Technical Appendix 6.6 of the Proposed Development's Environmental Impact Assessment Report (EIA Report). This OBEMP supersedes the originally submitted OBEMP. The revisions made, and additional information included, address a number of recommendations made by NatureScot in their consultation response to the Proposed Development (dated 22 March 2024). The extent of proposals, particularly in relation to peatland restoration, have been expanded, and further proposals included.

The measures detailed within this OBEMP will achieve significant biodiversity enhancement as a direct result of the Proposed Development over its operational lifetime, in line with objectives outlined in National Planning Framework 4 (NPF4) Policy 3¹.

A Biodiversity Net Gain (BNG) metric (discussed below) is utilised to demonstrate that the measures proposed for the creation and restoration/enhancement of habitats at the Proposed Development would fully compensate for predicted habitat and biodiversity losses and provide further enhancement. This would result in an increase and net gain for biodiversity of **+20%** for area-based habitats over and above the baseline and pre-development value of the Site post-construction and following implementation of the OBEMP. The OBEMP also delivers net gain for linear habitats.

This OBEMP is set out in the following sections:

- Summary of the Ecological and Ornithological Impact Assessments;
- Biodiversity Net Gain (BNG);
- Biodiversity Enhancement Area;
- Aims, Objectives and Management Prescriptions;
- BNG Assessment;
- Monitoring;
- Reporting and BEMP Review; and
- Management and Monitoring Timetable.

1.1 Target Habitats and Species

The management recommendations within this OBEMP are informed by baseline ecological and ornithological surveys undertaken for the Proposed Development and the conclusions of the

¹ Scottish Government (2023). National Planning Framework 4. Available at: <https://www.gov.scot/publications/national-planning-framework-4/> [Accessed December 2024].

assessment upon Important Ecological Features (IEFs) also set out in Chapter 6: Ecology of the EIA Report and Chapter 6: Ecology and Biodiversity of the Additional Information (AI) Report.

The key habitats considered in this OBEMP are blanket bog/wet modified bog, broadleaved woodland (including ancient woodland present on the Ancient Woodland Inventory (AWI)), scrub, and calcareous and acid grasslands. The key ornithological species considered is black grouse (*Tetrao tetrix*).

1.2 Finalisation of the BEMP and Reporting

This OBEMP is based on several identified Habitat Management Areas (HMAs; HMA A-F as shown in **AI Figure 6.2**) for each respective habitat management and biodiversity enhancement proposal. Several proposals also overlap with the extents of Local Nature Conservation Sites (LNCS); see **Chapter 6: Ecology & Biodiversity** of the Additional Information (AI) Report for further details. These HMAs were identified through discussions with the Applicant, landowner, and relevant technical specialists in order to enhance, create and connect habitats of biodiversity value. It is intended that that the entirety of these areas will be used for the respective biodiversity enhancement proposals; however, following further Site surveys some boundaries or extents may need to be refined to reflect conditions on Site. The Applicant remains committed to delivering significant biodiversity enhancement at the Proposed Development.

The OBEMP will be developed into a final BEMP post-consent. The final BEMP will confirm the overarching Biodiversity Enhancement Area (BEA) encompassing all habitat management proposals and finalised HMAs therein where the aims, objectives and management prescriptions will apply. The final BEMP will be agreed with West Dunbartonshire Council (WDC) in consultation with NatureScot prior to the commencement of construction of the Proposed Development.

A Biodiversity Management Group (BMG) set-up and coordinated by the Applicant (or subsequent wind farm owner) will oversee and monitor the implementation of the agreed BEMP. It is expected that the BMG would include representatives from WDC, NatureScot and the wind farm owner.

A BEMP report (initially for operational Years 1, 3 and 5) will be prepared by relevant independent technical specialists and submitted by the wind farm owner to the BMG detailing the tasks (management and monitoring) completed over the last year(s) and those planned for the year(s) ahead.

2 EXISTING CONDITIONS & SUMMARY OF ECOLOGICAL AND ORNITHOLOGICAL IMPACT ASSESSMENTS

2.1 Ecology

The Site and immediately surrounding area is upland in character and dominated by a mix of blanket bog, marshy grassland, wet dwarf shrub heath and acid grassland (see Appendix 6.1 and Figure 6.3 of the EIA Report). The area encompassed by the OBEMP Search Area (**AI Figure 6.2**) is a similar mosaic of upland habitats and is a single extensive grazing unit. This area is 1,386 ha in size and is grazed all year round by approximately 1,350 sheep. No cattle currently graze this area. The landowner advises there are no deer frequenting this area, although it is assumed that given deer

are present locally, there may be low numbers of deer periodically present on or around the Site. Limited deer control is known to occur within neighbouring forestry areas. The westernmost third of the Site Access passes through improved farmland by Murroch Farm, whereas the eastern two thirds of the Site Access primarily traverses *Molinia caerulea* dominated marshy grassland on thin peaty/organo-mineral soils.

As per Chapter 6: Ecology of the EIA Report, IEFs scoped-in to the ecological impact assessment comprise ancient woodland, blanket bog/wet modified bog and commuting/foraging bats; no significant effects are predicted. Chapter 6: Ecology and Biodiversity of the AI Report considered impacts on Auchenreoch Muir LNCS and West Dumbarton Muir LNCS; no significant effects are predicted.

The Proposed Development would impact up to 0.06 hectares (ha) of ancient woodland at Barr Wood and up to 17.13 ha of blanket bog (direct permanent 5.00 ha, direct temporary 3.76 ha, and potential indirect 8.37 ha) and 1.28 ha of wet modified bog (direct permanent 0.47 ha, direct temporary 0.34 ha, and potential indirect 0.47 ha).

The Proposed Development would also directly and permanently impact up to 2.82 ha of Auchenreoch Muir LNCS and 6.69 ha of West Dumbarton Muir LNCS via the presence of permanent infrastructure (as per Chapter 6 Ecology and Biodiversity of the AI Report).

This OBEMP proposes measures to compensate for the direct impact on blanket bog/wet modified bog habitats, ancient woodland, and LNCS as well as several other proposals for a range of habitat types in order to provide wider biodiversity enhancement in general through the enhancement, creation, expansion and connection of habitats of biodiversity value.

Potential collision risk impacts to bats will be mitigated in accordance with the proposals detailed in paragraph 6.2.38 of Chapter 6: Ecology of the EIA Report; however, the measures in this OBEMP will also create and enhance habitats and corridors for bats commuting and foraging (including creation of native woodland and hedgerows), and in the long-term potentially provide roost features.

2.2 Ornithology

As per Chapter 7: Ornithology of the EIA Report, during the ornithology baseline surveys, osprey and goshawk were recorded breeding several kilometres (km) from the Site. Several other raptor and wader species were recorded occasionally around the Site and the wider survey area, but no other breeding raptors and only very low number of breeding waders were recorded. A Breeding Bird Protection Plan (BBPP) is proposed to mitigate impacts during the construction phase.

A historical black grouse lek site was recorded in 2009 at Auchenreoch ruins outwith the Application Boundary (Figure 7.8 of the EIA Report). In further baseline surveys from 2019-2022 only two black grouse flights and no leks were recorded, with the historical lek site considered likely to be no longer in use.

The important ornithological features (IOFs) scoped-in to the ornithological impact assessment comprised osprey, goshawk and black grouse; no significant effects were predicted. However, several measures in this OBEMP would create and enhance habitat close to the historic lek site for any black grouse that persist in the local area.

3 BIODIVERSITY NET GAIN

BNG is a process which follows the principal of biodiversity enhancement and leaves nature in a better condition than before development work started. No Scotland-specific biodiversity metric is yet in existence, although one is proposed for development by the Scottish Government and NatureScot. However, the latest Scottish & Southern Energy Renewables (SSER) BNG Metric² has been used here as it is considered the most appropriate available metric in the Scottish context.

The SSER BNG toolkit³ for use in Scotland is based upon the Natural England Biodiversity Metric⁴ which aims to quantify biodiversity based upon the value of habitats for nature. It is a method for demonstrating whether development projects have been able to maintain or increase the biodiversity value of a development site after construction works. The SSER BNG toolkit has been utilised to undertake a preliminary BNG assessment for the Proposed Development and the measures proposed within this OBEMP.

The scope of the BNG assessment is to quantify the overall potential adverse and beneficial biodiversity impacts associated with the Proposed Development; this includes a biodiversity baseline assessment, analysis of habitat losses due to temporary works and permanent structures (e.g., tracks and hardstandings). Analysis of biodiversity gains would be completed following reinstatement of habitats in areas of temporary construction work and additional habitat enhancement and creation (whether onsite and/or offsite).

It is important to note that within the SSER and other BNG metrics, habitats which are negatively impacted and considered as ‘irreplaceable’ will require bespoke compensation and should be compensated for, following national legislation, policy, and guidelines⁵. However, as per SSER guidance⁵, irreplaceable habitats and compensation for them should be included within the biodiversity unit calculations and included within the respective biodiversity toolkit. Inclusion of these areas within the BNG calculations and toolkit is required to provide a complete picture of all habitats present onsite. In line with SSER guidance⁵ for the Proposed Development, irreplaceable habitats comprise areas of ancient woodland (excluding long-established woodlands of plantation origin (LEPO)) and active blanket bog in good condition. Compensation and enhancement relating to blanket bog habitats onsite is considered in cognisance of NatureScot guidance⁶.

The BNG assessment is based upon National Vegetation Classification (NVC) and habitat surveys (converted to Phase 1 habitat types for the purposes of the BNG toolkit) undertaken to inform the EIA Report (see Appendix 6.1 and Figure 6.3 of the EIA Report).

² SSER BNG Project Toolkit Version 2-3. Downloaded 06/01/2025 from <https://www.sserenewables.com/sustainability/nature-positive/>

³ <https://www.sserenewables.com/sustainability/biodiversity-net-gain/> [Accessed January 2025]

⁴ Natural England (2022) The Biodiversity Metric 3.1. <https://nepubprod.appspot.com/publication/5850908674228224>

⁵ https://www.sserenewables.com/media/jz2jbehn/sser-bng-toolkit-user-guide_v2-2.pdf [Accessed January 2025]

⁶ <https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management> [Accessed December 2024]

4 BIODIVERSITY ENHANCEMENT AREA

4.1 Overview

This OBEMP proposes a BEA covering 281.91 ha and 2000 linear metres (m), comprising six overarching HMAs (HMAs A – F; see **AI Figure 6.2**), each generally focussing on a particular habitat or feature type, within which management and monitoring works would be implemented. Habitat and biodiversity management and monitoring works would be undertaken within these respective HMAs. Details of each HMA are provided in **Sections 4.2 - 4.7**.

The overall goal of the BEMP is to restore, enhance and create habitats of ecological value in these HMAs, which in turn will benefit existing flora and fauna and increase overall biodiversity.

This OBEMP includes peatland restoration and enhancement measures. NatureScot guidance⁶ suggests that effects on priority peatland habitats should be compensated in the order of 1:10 (lost:restored) with a further 10% restoration of the Site baseline extent of priority peatland habitats, to deliver additional enhancement. Using NatureScot guidance⁶ the compensation and enhancement requirements for priority peatland at the Proposed Development would be in the region of 201.7 ha if accounting for the full predicted and potential permanent and temporary direct and indirect effects stated in Chapter 6 of the EIA Report. As discussed in Chapter 6 of the EIA Report, indirect drainage effects are not certain, and if they do occur, are unlikely to be fully realised for various reasons. Consequently, it is considered that the 1:10 ratio should be more appropriately applied to the known direct permanent and temporary losses (N.B. current Scottish Government guidance⁷ does not specify any ratios, instead taking a more holistic view regards biodiversity and a project/site specific characteristics or circumstances). In this regard, the compensation and enhancement requirements for priority peatland at the Proposed Development would be in the region of 113.20 ha. Peatland restoration and enhancement measures outlined in **Section 5.1** below which will be applied to priority peatland habitats cover up to approximately 108.25 ha (**Section 4.2**). Therefore, for predicted direct losses for permanent and temporary infrastructure, peatland restoration/enhancement proposals at the Proposed Development would be slightly less than the 1:10 compensation ratio plus 10% enhancement. **Chapter 6: Ecology & Biodiversity** of the AI Report explains that peatland restoration options have been maximised at the Site and sets out why the area suggested by NatureScot is not achievable.

The precise objectives and detailed management prescriptions for the finalised HMAs will depend on the current condition of the habitat and the existing factors acting upon it or contributing to current condition. To further inform the objectives and detail appropriate management prescriptions, further specific surveys (carried out prior to commencement of development) and desk-based assessment may be required to develop the final BEMP. These surveys may include, but are not limited to, the following:

⁷ Scottish Government (2023). Biodiversity: draft planning guidance. <https://www.gov.scot/publications/scottish-government-draft-planning-guidance-biodiversity/pages/1/>

- Further peatland condition assessments considering NatureScot guidance⁶ and Peatland Action guidance⁸;
- Joint Nature Conservation Committee (JNCC) Common Standards Monitoring (CSM) of Upland Habitats⁹ or habitat condition assessments utilising the latest Biodiversity Metric¹⁰ condition assessment pro-forma and methodology;
- Hydrology/ecology walkover to identify opportunities and specific locations for drain blocking, erosion feature restoration/reprofiling, bare peat revegetation, and restoration of the peatland water table;
- Herbivore Impact Assessment (HIA);
- GIS mapping exercises (e.g., additional mapping of drains/moor grips and density mapping of self-seeded non-native conifers); and
- Walkover surveys by a forester to further inform and refine woodland and scrub enhancement and planting proposals and details.

4.2 HMA A – Peatland Restoration/Enhancement

HMA A is 121.96 ha, split over 13 sub-units (A1 – A13), and is comprised of predominantly blanket bog habitat (priority peatland communities cover 108.25 ha). The OBEMP submitted with the EIAR included 89.94 ha of peatland restoration/enhancement, therefore this revised OBEMP has increased relevant proposals by 18.31 ha.

Within the HMA the aim is to restore and enhance peatland habitat. This aim would likely be fulfilled primarily through drain blocking and self-seeded non-native conifer removal. The specific areas selected for this HMA (as per **AI Figure 6.2**) appear from a desk-based review of aerial imagery to contain historical moor grips that will have over time lowered the water table in these areas. Some drains, which now may be largely occluded and revegetated, are still likely be having a minor adverse effect on the peatland hydrology. As noted above, a detailed drain survey will be carried out to inform drain damming locations. The desk-based review as well as information from the habitats field surveys indicate that several areas are also subject to invasion and encroachment from self-seeded non-native conifers, particularly in the east where the blanket bog abuts areas of commercial conifer plantation.

Following further assessment of these sub-units, other management prescriptions would be incorporated as appropriate and necessary, for example in some areas there appears to be some potential hags with associated peat banks and gullies.

Peatlands are important for preventing and mitigating the effects of climate change, preserving biodiversity and minimising flood risk. The improvement of these habitats will also be of benefit to

⁸ NatureScot (2021). Peatland Action: Peat Depth and Peatland Condition Survey. <https://www.nature.scot/doc/peatland-action-peat-depth-and-peat-condition-survey-guidance-and-recording-form-guidance>

⁹ <https://jncc.gov.uk/our-work/common-standards-monitoring>

¹⁰ <https://publications.naturalengland.org.uk/publication/6049804846366720>

local flora and fauna, including the upland breeding bird assemblage, such as upland passerines and wader species.

4.3 HMA B – Native Broadleaved Woodland Enhancement, Creation & Connectivity

HMA B is 114.51 ha, split over six sub-units (i.e., B1 - B6; **AI Figure 6.2**). This proposal in the OBEMP with the EIAR covered 111.41 ha, therefore this revised OBEMP has increased the extent of relevant proposals by 3.10 ha.

The habitats present are currently predominately dense bracken with some patches of common acid grassland and species poor *Molinia caerulea* dominated marshy grasslands. Bracken, although a native species, can become problematic, inhibiting grasslands and woodland regeneration and expansion.

The aim within HMA B is to create areas of semi-natural broadleaved woodland, enhancing and expanding existing areas and connecting existing and often small and fragmented stands, many of which are ancient woodland. Many of the areas are riparian, but also extend out further into suitable areas for planting on low sensitivity habitats, such as bracken. Some planting is also proposed around the substation perimeter to provide screening from the historic black grouse lek¹¹.

The proposals in HMA B would generally involve bracken management and the planting and establishment of a range of broadleaved species in non-uniform patterns and densities within the respective sub-units. The woodland and planting will largely aim to reflect the canopy composition of W4/W7/W11 NVC woodland types depending on the character and respective soil conditions within each sub-unit. There is no sensitive deep peatland nor sensitive potential groundwater dependent terrestrial ecosystems (GWDTEs)¹² within HMA B, and as such it would generally all be suitable for planting; however, any small patches of wet heaths, blanket bog habitat or deeply incised gullies would not be planted and remain as retained open ground to form openings and woodland glades in the long term.

HMA B also contains 15.05 ha of existing woodland of varying quality, much of which is listed on the ancient woodland inventory and outside, but in proximity to, the Application Boundary. Sub-unit B1 covers part of the Application Boundary and the ancient woodland at Barr Wood. The aim will also be to enhance these stands of woodland where applicable. For instance, the existing ancient woodland at Barr Wood covered by these proposals is in decline, comprising of mainly two rows of veteran/mature beech trees, large gaps in the woodland, little/no natural tree regeneration and the lack of an under-scrub layer (for more details see Appendix 6.1 and Appendix 14.1 of the EIA Report). In areas such as this, enhancement measures would be undertaken, such as enrichment planting. Furthermore, the trees felled as part of the Site Access works through Barr Wood would be moved nearby and placed and retained within the section of HMA B covering Barr Wood (i.e., B1), this will create deadwood habitat and provide an opportunity for those invertebrates and fungi resident within the tree to relocate. Soils excavated during Site Access

¹¹ N.B. Due to the scale of the Figure, **AI Figure 6.2** does not show proposed perimeter planting at the substation.

¹² <https://forestry.gov.scot/publications/117-briefing-note-18-publication-of-gwdte-practice-guide>

works through Barr Wood would also be translocated within sub-area B1 to allow the transfer of ancient woodland soil biota and seedbank.

The creation, expansion, enhancement and connection of woodland fragments has multiple beneficial biodiversity effects such as creating structure and new breeding, shelter and foraging habitats for a range of species, from terrestrial and aquatic invertebrates to birds, bats and fish. There are also many secondary benefits of woodland creation, such as natural flood management, shade, carbon sequestration and helping to mitigate the effects of climate change.

Riparian planting would improve the ecological quality of watercourses (e.g., through allochthonous material inputs, thermoregulation, erosion reduction), create shelter opportunities (e.g., for otter), establish improved habitat corridors (e.g., for bats) and provide shading to watercourses and a source of nutrient inputs and aiding in temperature regulation and cover for fish. The wider planting proposals would also benefit black grouse through enhanced shelter and foraging habitats and the connectivity of these.

4.4 HMA C – Auchenreoch Glen SSSI Grassland Restoration

HMA C comprises a single unit, C, which is 12.20 ha in extent and covers the area of Auchenreoch Glen SSSI.

Auchenreoch Glen SSSI is designated for lowland calcareous grassland and springs (including flushes)¹³. The lowland calcareous grassland was last assessed as in Favourable Maintained condition on 19 August 2010 but with a negative pressure of invasive species; the springs feature was assessed as Favourable Maintained on 10 August 2013. The condition assessment for the lowland calcareous grassland is considered outdated having not been assessed since 2010 and that the results of the NVC surveys for the Proposed Development in 2020 and 2021 indicate that, when compared with NatureScot’s SSSI designation NVC data, much of the SSSI area has now been taken over by dense and continuous bracken which has resulted in the commensurate loss of the grassland habitats (see Appendix 6.1 and Figure 6.3 of the EIA Report). The condition status of the calcareous grassland is now more likely to be Unfavourable and without intervention it is expected that bracken will continue to encroach and expand to take over suitable grassland habitats within the SSSI, and the condition may be considered Unfavourable declining in line with NatureScot definitions¹⁴.

NatureScot’s SSSI designation NVC data indicates that whilst it is designated for calcareous grassland (NVC type CG10) there is a complex mosaic of various grasslands here, as well as the calcareous CG10 there are also areas of neutral MG5, acidic U4, and some more improved MG6. Although CG10, MG5 and U4 were all still recorded as present within the SSSI during NVC surveys for the Proposed Development, all their extents were much reduced due to dense bracken encroachment.

The aim within HMA C would be to mechanically and/or manually remove and control the bracken in order to allow the various grassland habitats to naturally regenerate, return the SSSI to Favourable condition, and maintain this throughout the lifetime of the Proposed Development.

¹³ <https://sitelink.nature.scot/site/100>

¹⁴ <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/site-condition-monitoring/assessment-condition>

The control of bracken will also improve the flora diversity of the area and increase wildflower cover for insects and pollinators, considering the species-richness of the remaining patches of CG10.

4.5 HMA D – Native Mixed Scrub Enhancement/Creation

HMA D is 7.25 ha in extent and split between two sub-units (i.e., D1 and D2; **AI Figure 6.2**), and is predominantly comprised of M25b *Molinia caerulea* marshy grassland with some small fragments of other habitat types such as acid grassland. HMA D is also adjacent some areas of W23 *Ulex europaeus* (gorse) scrub.

The aim within HMA D is primarily to create a mosaic of scattered native mixed scrub around the edges of some existing woodlands and woodlands proposed for creation as part of HMA B. This would involve the planting of a range of scrub species in scattered and non-uniform patterns and densities, a low number of broadleaved trees would also be included within the planting mix to further enhance the long-term structure, diversity and connectivity with abutting areas of woodland.

Scrub is very scarce within the survey area for the Proposed Development, with just a few small patches of gorse or hawthorn scrub recorded. The enhancement of the scrub and the creation of more diverse and species-rich scrub will provide biodiversity enhancement and create new shelter and foraging habitats for a range of species, as well as provide a scrub zone around some areas of woodland and enhancing woodland and scrub connectivity.

4.6 HMA E – Bracken Control

HMA E and its associated sub-units are comprised of areas of dense bracken and cover an area of 25.99 ha. This proposal and associated areas are a new proposal not previously included within the OBEMP submitted with the EIAR.

Within HMA E, the aim is primarily for acid grassland restoration through bracken removal and management, however there may be patches restorable to calcareous grassland in the areas around Auchenreoch. These areas are currently large areas of dense and continuous bracken of negligible conservation or biodiversity value.

The aim will be to mechanically and/or manually remove and control the bracken in order to allow the local acid and calcareous grassland habitats to naturally regenerate and maintain this throughout the lifetime of the Proposed Development. The control of bracken will extend the amount of grassland present and improve the floral diversity of the area, with increased wildflower cover for insects and pollinators. The replacement of tall dense bracken with open grassland habitats may also create further lekking site opportunities for black grouse. The removal of bracken and replacement with grassland will also increase available grazing for livestock, as grasslands are preferentially grazed over less productive and sensitive habitats such as blanket bog and heaths the increase in grassland resource will help reduce livestock pressure on more sensitive habitats.

4.7 HMA F – Native Hedgerow Creation

HMA F is linear and covers approximately 2000 m¹⁵. In the areas around Merkins Farm and Highdykes surrounding the Proposed Development there are areas of post and wire stock fences that create the field boundaries for many of the more improved or managed grassland areas.

The aim for HMA F is to create native and species-rich hedgerows, these will be planted along existing post and wire fences. The hedgerows will provide further species diversity and create habitat corridors for a range of species and in general further enhance habitat connectivity and local biodiversity.

5 AIMS, OBJECTIVES AND MANAGEMENT PRESCRIPTIONS

The aims define the general BEMP goals, and the related objectives further define the aims into quantifiable targets. The management techniques and prescriptions outline the likely indicative management works to be implemented to achieve these aims and objectives. **Annex A** provides an indicative timetable for the implementation of the associated prescriptions.

As discussed in **Section 4.1**, detailed appropriate objectives and prescriptions will be developed post-survey for the final BEMP based on additional survey findings, consultation, and in accordance with best practice. However, the experience gained from providing and delivering plans for similar upland sites and habitats would suggest that as an outline, the aims, objectives, techniques and prescriptions would likely include or be similar to the below.

5.1 Aim 1: Restore & enhance peatland habitat and improve bog condition (HMA A)

- | | |
|------------------|---|
| Objective 1.1 | Increase the abundance and distribution of major peat forming species, particularly Sphagna. |
| Objective 1.2 | Enhance and improve blanket bog condition. |
| Objective 1.3 | Eradicate self-seeded non-native conifers from all peatlands within HMA A. |
| Prescription 1.1 | Peat dam, reprofile, or wave dam/zipper any active drains ¹⁶ (even if vegetated) as appropriate for the location specific drain in order that the water level is raised sufficiently and to restore natural flow paths to create conditions suitable for a range of blanket bog species. This should be carried out under the supervision of a suitably qualified Ecological Clerk of Works (ECOW). Methods as detailed within relevant guidance ^{16, 17, 18} . |

¹⁵ Due to the narrow linear nature of hedgerows and that the specific locations are yet to be determined, these are not shown on **AI Figure 6.2**.

¹⁶ According to methodology detailed in: Peatland Action (2024) Technical Compendium. Available at: <https://www.nature.scot/doc/peatland-action-technical-compendium>

¹⁷ NatureScot (2019). Peatland Action - Guidance for land managers - installing peat and plastic dams. Available at: <https://www.nature.scot/doc/peatland-action-guidance-land-managers-installing-peat-and-plastic-dams>

¹⁸ Thom, T., Hanlon, A., Lindsay, R., Richards, J., Stoneman, R. & Brooks, S. (2019). Conserving Bogs: The Management Handbook. (2nd Edition). Available at: <https://www.iucn-uk-peatlandprogramme.org/resources/restoration-practice/conservation-handbook>

- Prescription 1.2 Remove invading self-seeded non-native conifer trees and any new broadleaved seedlings from HMA A annually, by hand or clearance saw, until a time that monitoring shows that regeneration is no longer an issue, or the frequency of intervention can be reduced.
- Prescription 1.3 Undertake peat hagg and gully restoration and peat surface re-profiling where appropriate with a low-pressure excavator and in line with relevant guidance^{16, 18}.
- Prescription 1.4 Manage sheep and deer numbers within and surrounding HMA A if required and in agreement with the landowner, to achieve Objectives 1.1 and 1.2. Initially it is anticipated that livestock numbers will be reduced in the OBEMP search area by 100-200 sheep from the beginning of the operational period (any further adjustments to stock would be informed by monitoring).
- Prescription 1.5 The following activities would be prohibited within the HMA:
- clearing out of existing ditches;
 - supplementary feeding of livestock;
 - application of any insecticides, fungicides or molluscicides;
 - application of lime or any other substance to alter the soil acidity;
 - cutting or topping of vegetation except to control injurious weed species or to improve the biodiversity of the habitat;
 - burning of vegetation or other materials;
 - use of roll or chain-harrow;
 - planting trees;
 - carrying out any earth moving activities;
 - use of off-road vehicle activities with the exception of use of low scale agricultural vehicle movements (e.g., quad bike);
 - construction of tracks, roads, yards, hardstandings or any new structures (not associated with the Proposed Development); and
 - storage of materials or machinery.

5.2 Aim 2: Promote native broadleaved woodland cover through enhancement, expansion and connectivity (HMA B)

- Objective 2.1 Enhance, create, expand, and connect areas of native broadleaved woodland and ancient woodland and increase diversity within and around the Site through the enhancement of 15.05 ha of existing woodland and the creation of up to 99.46 ha of new woodland.
- Objective 2.2 Increase and enhance faunal diversity within and around the Site by providing more habitat structure and new breeding, shelter and foraging habitats for a range of birds, bats and other small mammals, and invertebrates.
- Prescription 2.1 Undertake new native broadleaved woodland planting within the open ground of HMA B and respective sub-units. Planting will be non-uniform patterns and of variable densities on advice from a professional forester and

utilise low impact ground preparation techniques such as screening or inverted mounding¹⁹.

Given the location, soils and prevailing baseline habitats of the proposed planting areas, and to reflect the character and structure of the existing woodlands locally, it is anticipated that the species mixes here would primarily contain oak (*Quercus* spp.), birch (*Betula* spp.) and rowan (*Sorbus aucuparia*). However, it is proposed to increase diversity by also including smaller proportions of species such as aspen (*Populus tremula*), goat willow (*Salix caprea*), hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), bird and/or wild cherry (*Prunus* spp.), wych elm (*Ulmus glabra*) and holly (*Ilex aquifolium*). Where there are damper soils the species mix would primarily include birch, rowan, alder (*Alnus glutinosa*) and grey willow (*Salix cinerea*).

Proportions of species and their planting locations would be determined by a forester, in agreement with a suitably qualified ecologist, during preparation of the final BEMP.

Tree planting would be initiated during construction and be completed by the end of the operational Year 1. Tree planting would be carried out between the months of November and March when trees are dormant and more likely to establish successfully. Days when the ground is frozen or when snow or excessive surface water is present are to be avoided.

- Prescription 2.2 Undertake enrichment planting within suitable existing woodland areas within HMA B and respective sub-units. The enrichment planting will aim to assist woodland regeneration and increase species diversity. Locations for enrichment planting will be identified by a professional forester during finalisation of the BEMP. Enrichment planting would be completed by the end of operational Year 1.
- Prescription 2.3 Trees to be felled and soils to be excavated for the Site Access works through Barr Wood will be translocated within sub-unit B1 to create deadwood habitats and to allow the transfer of ancient woodland tree and soil biota and underlying seedbank to aid in the enhancement of existing woodland and establishment of new woodland.
- Prescription 2.4 Mechanised and/or manual control and management of bracken following best practice²⁰, with ongoing and repeated control where this is necessary, to allow tree establishment.
- Prescription 2.5 Fencing of some planting/enhancement areas will likely be required to protect new trees from deer and livestock browsing during the establishment phase. Any new fencing within 1 km of the historical black grouse lek would follow guidelines in Trout & Kortland (2012)²¹ to minimise collision risk for black grouse.
- All trees will be planted in 1 - 1.2 m biodegradable tree tubes to further protect from browsing damage in areas that remain unfenced, or where deer or livestock may breach fenced areas.

¹⁹ Scottish Forestry. (2021). Cultivation for upland productive woodland creation sites: applicants' guidance. <https://forestry.gov.scot/publications/1032-cultivation-for-upland-productive-woodland-creation-sites-applicant-s-guidance>

²⁰ [Bracken Control - A Guide to Best Practice | NatureScot \(webarchive.org.uk\)](https://www.nature.scot/webarchive.org.uk/bracken-control-a-guide-to-best-practice)

²¹ Trout, R. and Kortland, K. (2012). Fence marking to reduce grouse collisions. Forestry Commission Technical Note.

Tree tubes will be removed after approximately 10 years or after adequate establishment of the trees.

- Prescription 2.6 Manage sheep/deer densities, if required, to allow woodland establishment. Subsequently use the results of vegetation and tree monitoring to determine whether ongoing stock/deer management requires to be reviewed to allow successful establishment of the trees planted.
- Prescription 2.7 Prohibited activities noted in Prescription 1.5 above apply (with the exception of planting trees).

5.3 Aim 3: Auchenreoch Glen SSSI grassland restoration (HMA C)

- Objective 3.1 Remove bracken coverage and halt further bracken encroachment within Auchenreoch Glen SSSI.
- Objective 3.2 Restore the grassland habitats within Auchenreoch Glen SSSI back to Favourable condition.
- Prescription 3.1 Mechanised and/or manual control and management of bracken following best practice²⁰, with ongoing and repeated control where this is necessary, on the SSSI and a 50 m buffer thereof.
- Prescription 3.2 Prohibited activities noted in Prescription 1.5 above apply.

5.4 Aim 4: Promote species-rich native scrub cover (HMA D)

- Objective 4.1 Create and enhance areas of native mixed scrub and increase floral diversity through the planting of 7.25 ha of native scrub.
- Objective 4.2 Increase faunal diversity locally by providing more habitat structure and new breeding, shelter and foraging habitats.
- Prescription 4.1 Undertake scrub planting within HMA D. Planting will be non-uniform patterns and of variable densities on advice from a professional forester and utilise low impact ground preparation techniques such as screefing or inverted mounding¹⁹. Planting will also be scattered in order to retain areas of grassland and to allow the formation of grassland glades/openings and a mixed scrub – grassland mosaic.

The locality already contains some patches of gorse nearby, abutting sub-unit D2 to the east and south of sub-unit D1. The scrub planting will supplement this with primarily hawthorn, but the planting species mix would also include blackthorn (*Prunus spinosa*), common juniper (*Juniperus communis*), hazel, crab apple (*Malus sylvestris*) and holly.

In addition, a low number of scattered broadleaved tree species would be included (e.g., oak, birch, willow and rowan) to further enhance the long-term structure and diversity.

Proportions of species and their planting locations would be determined by a forester, in agreement with a suitably qualified ecologist, during preparation of the final BEMP.

Scrub planting would be initiated during construction and be completed by the end of the operational Year 1. Planting would be carried out between the months of November and March when trees are dormant and more likely to

establish successfully. Days when the ground is frozen or when snow or excessive surface water is present are to be avoided.

Prescription 4.2 As per Prescription 2.4 above.

Prescription 4.3 As per Prescription 2.5 above.

Prescription 4.4 As per Prescription 2.6 above.

Prescription 4.5 Prohibited activities noted in Prescription 1.5 above apply (with the exception of planting scrub/trees).

5.5 Aim 5: Restore grassland habitats (HMA E)

Objective 5.1 Remove bracken coverage and halt further bracken establishment within HMA E.

Objective 5.2 Restore the grassland habitats within HMA E to locally comparable acid grassland (and calcareous grassland, if relevant).

Prescription 5.1 Mechanised and/or manual control and management of bracken following best practice²⁰, with ongoing and repeated control where this is necessary.

Prescription 5.2 Prohibited activities noted in Prescription 1.5 above apply.

5.6 Aim 6: Create, and increase the extent of, native hedgerows (HMA F)

Objective 6.1 Create approximately 2000 m of new species-rich hedgerows²² and link with existing hedgerows/scrub to create and enhance habitat corridor connectivity.

Prescription 6.1 Plant approximately 2000 m of new native species-rich hedgerows. The hedgerows are likely to consist of 60-80% hawthorn with crab apple, hazel, blackthorn and holly generally making up the remainder of the species-mix. Some trees may also be included within the hedge (such as oak, birch, rowan and cherry).

Planting should be in double-staggered rows at a density of six plants per metre.

When planting, the minor component species would be planted first, to get a suitable distribution, and then areas in-filled with the hawthorn. Plant the same species in groups of at least one metre, to avoid single plants being outcompeted by other species.

²² In line with Scottish Government (2017). Supporting guidance for Planting or Replanting of Hedges. Available at: <https://www.ruralpayments.org/topics/all-schemes/agri-environment-climate-scheme/management-options-and-capital-items/planting-or-replanting-of-hedges/guidance-for-planting-or-replanting-of-hedges/>

- Prescription 6.2 Protect young and developing hedge plants from browsing by animals via livestock fencing and guards/tree tubes. The fence would be situated a minimum of 1 m away from the centre line of the hedge to allow space for the hedge’s expansion and to leave room for trimming, coppicing or laying the hedge in the future.
- Prescription 6.3 Control competing vegetation in the first two years of establishment. Using strimming, a mulch, or if necessary, an appropriate herbicide.
- Prescription 6.4 The hedgerow would be managed in line with best practice and relevant guidance²³, including the following key aspects:
- Light, regular, trimming of the hedgerow will be undertaken in its early and establishment years to encourage dense, bushy growth.
 - After establishment, the hedge may be cut just once every two or three years. Alternatively, cut just one side or the top each year, and not trimming the same length of hedge annually. Each time let the hedge grow out and up a little and do not cut back to the same height each trimming cycle.
 - Hedge trimming to be undertaken between 1 December and the last day in February.
 - Leave occasional berry or fruit bearing trees to grow to maturity. These would be identified in the establishment years and not trimmed in order to allow them to mature and in the longer term create a hedge with scattered trees.

6 BIODIVERSITY NET GAIN ASSESSMENT

6.1 Overview

The SSER biodiversity toolkit³ was used to quantify the biodiversity value of the Site based upon the habitats present and to demonstrate the project would achieve biodiversity enhancements in line with NPF4 Policy 3 requirements. This includes:

- Quantitative assessment to determine the biodiversity baseline prior to development based on the habitats data collected for the Proposed Development (as per Appendix 6.1 and Figure 6.3 of the EIA Report);
- Assessing the loss of habitat during construction; and
- Analysis of the biodiversity value following works, with retention and creation/restoration/enhancement of habitats.

Habitat quality (distinctiveness, condition, strategic significance and connectivity) was determined for each Phase 1 habitat type in each relevant area by reviewing the habitats survey data and surveyor experience, and referring to the following guidance:

- SSER BNG Toolkit User Guide⁵;

²³ e.g., <https://hedgelink.org.uk/>

- Natural England Biodiversity Metric 4.0²⁴ – User Guide, Technical Supplements, and Habitat Condition Assessment; and
- JNCC Common Standards Monitoring (CSM) criteria⁹ (used to aid some habitat condition assessments).

In line with SSER guidance²⁵, the boundary for the baseline biodiversity assessment equates to the habitats within the Application Boundary affected by the Proposed Development (i.e., areas of permanent and temporary land take), including any buffer effects, where appropriate (e.g., indirect drainage effects on relevant wetland habitats), along with any areas identified for biodiversity enhancements (i.e., the proposed OBEMP HMAs).

6.2 BNG Assessment Results

6.2.1 Biodiversity Baseline

The biodiversity baseline for the Proposed Development covers 309.72 ha and 2000 m and is based upon the habitat quality scores (distinctiveness, condition, strategic significance and connectivity), the area of the habitats directly and indirectly affected by the Proposed Development²⁶, the area/length of OBEMP HMA's A – F, and the resulting number of Biodiversity Units (BU) or Irreplaceable (IRR) habitat units each area and type of habitat contributes. Habitat types of less than 0.01 ha are under the minimum mappable unit (MMU) and were not included in line with SSER metric guidance⁵, as they are not large enough to be considered a viable habitat and be effectively managed to increase overall biodiversity.

Using the SSER BNG toolkit, the biodiversity value of the baseline BNG assessment area was calculated to be 3598.58 BU, with zero IRR²⁷.

6.2.2 Biodiversity Change during Construction

During the construction of the Proposed Development, habitats will be lost, either temporarily or permanently, to provide construction compounds, access tracks, and the turbine/hardstandings infrastructure footprints. The majority of habitat, and biodiversity, under the infrastructure footprint areas is therefore lost during works. There may also be some indirect drainage effects on relevant wetland habitats, with a 10 m indirect drainage buffer assumed, as discussed further in Chapter 6: Ecology of the EIA Report. The relevant habitats in this buffer are retained, however in line with SSER BNG guidance⁵ for affected habitats, it is assumed that the indirect effects result in a drop in habitat condition category.

The BU that will be removed to accommodate the Proposed Development are summarised in **Table 6-1**. The assessment results, as presented in Chapter 6: Ecology of the EIA Report predict a 10.33 ha loss of habitat for permanent infrastructure. The SSER BNG Metric user guide⁵ states that in situations where habitats will be temporarily impacted by any works and will be fully restored to its baseline condition (or improved) within two years can be considered as retained habitat within

²⁴ <https://publications.naturalengland.org.uk/publication/6049804846366720>

²⁵ <https://www.sserenewables.com/media/vgsdoav3/sser-biodiversity-net-gain-report-nov-2022-final.pdf> and SSER BNG representative Pers. Comm 05 September 2024.

²⁶ The predicted and potential habitat losses and modifications associated with Proposed Development for each habitat type are detailed in Chapter 6: Ecology of the EIA Report.

²⁷ No irreplaceable habitats (as detailed within SSER guidance) are predicted to be lost as a result of the Proposed Development.

the toolkit. Therefore, temporary working areas in habitats such as improved grasslands are considered to fall within this category (here covering approximately 0.03 ha). However, certain habitat types temporarily impacted at the Proposed Development will likely take more than two years to recover to their previous condition and therefore this cannot be considered a ‘temporary’ loss and must be recorded in the BNG calculation tool as having been permanently lost, before considering recreation or restoration. As such, a further 7.75 ha loss of habitat for temporary working areas in habitats such as marshy grasslands, heaths, blanket bog, wet modified bog, and flush is predicted, and these have been considered a loss in the BNG toolkit. Potential indirect modifications to certain sensitive wetland habitats cover a further 10.25 ha, with drop in habitat condition and associated BU assumed in the BNG toolkit.

At the end of the construction phase, any temporary working areas will be restored following best practice methods and guidance. It is assumed that in general and where feasible and practicable, reinstated habitats in the temporary works areas will be ‘like for like’ or improved upon, compared to the baseline habitat and in line with guidance principles.

Overall, this equates to a loss of 231.01 BU during the construction phase

6.2.3 Post-Development Biodiversity Enhancement

Biodiversity enhancement and an increase in BU would be delivered through the enhancement/restoration and creation of habitat types following the construction of the Proposed Development, as proposed for the habitat types and HMA’s A - F as outlined in **Section 4** above and shown in **AI Figure 6.2**.

The proposals within this OBEMP would result in:

- The restoration and enhancement of 108.25 ha of priority peatland blanket bog and modified bog habitats (HMA A);
- The enhancement of 15.05 ha of existing broadleaved woodland (including ancient woodland) (HMA B);
- The creation of up to 99.46 ha of new native broadleaved woodland (HMA B);
- The restoration of species-rich grasslands within Auchenreoch Glen SSSI (12.20 ha) (HMA C);
- The creation 7.25 ha of species-rich native scrub (HMA D);
- The restoration of 25.99 ha of grasslands through bracken control (HMA E); and
- The creation of 2000 m of new species-rich hedgerows (HMA F).

All of the above proposals will enhance biodiversity at and around the Proposed Development on top of the retained baseline habitats.

The value of these habitats in terms of BU, and the increased BU produced due to the enhancement and creation of habitats is summarised in **Table 6-1**.

6.2.4 Summary of Overall Biodiversity Change

Table 6-1 summarises the change in BU from the baseline, during works (lost and retained habitats and Site reinstatement), and enhancement and creation of habitats following completion of construction and as set out within this OBEMP.

Following construction and Site reinstatement the Proposed Development would result in the loss of 231.01 BU. Following implementation of the BEMP as outlined here, the Proposed Development would result in the creation of an additional 956.13 area-based BU. These BU created through the OBEMP would fully compensate for the 231.01 BU lost during construction and then provide significant net biodiversity enhancement over and above the pre-development baseline values in the order of an additional +725.12 BU (**an area net gain of 20%**).

Table 6-1: Biodiversity Unit Change at each Stage of Development

Stage	Biodiversity Units (BU)	BU Gained/Lost from Baseline
Baseline	3598.58	N/A
Construction phase and following Site reinstatement of temporary working areas	3367.57	-231.01 (-6.4%)
Post Development: OBEMP – habitat enhancement/ creation	4323.70	+725.12 (+20.2%)

In addition, the creation of 2000 m of hedgerows will result in the generation of 11.20 BU (**a linear net gain of +1120%**).

6.2.5 Limitations to the BNG Assessment

The post-development biodiversity unit calculations are based on the difficulty to create habitats (Delivery risk) and the time (in years) to reach their target condition (Temporal risk) which are based on published guidance¹⁰ and previous project experience, these are generally average values and as such there may be natural variation around the time to reach target condition.

The BNG assessment has been undertaken on the data currently available, the infrastructure layout and proposals for construction of the Proposed Development, and the biodiversity enhancement proposals outlined within this OBEMP. Should any of these elements change then there may be a change in the BNG calculations for the Proposed Development. Therefore, the BNG toolkit and assessment would be refined/updated and detailed in the final BEMP post-consent/pre-construction, in line with the most up to date proposals for the Proposed Development, consultation feedback, and the final agreed BEA, HMA's and associated proposed enhancement measures.

7 MONITORING

Monitoring will establish whether the proposed management prescriptions are achieving the various aims and objectives and in turn will inform adaptive management to ensure the aims and objectives are achieved through the life of the BEMP.

The sections below outline the likely monitoring required for the proposals detailed above, however the detailed monitoring proposals will be provided in the final BEMP to be submitted post-consent and pre-construction when the BEA, HMA's, and associated proposed enhancement measures have been finalised. An indicative monitoring timetable is provided in **Annex A**.

7.1 Aim 1: Restore & enhance peatland habitat and improve bog condition (HMA A)

The following monitoring measures would be undertaken to evaluate and report on the success of this aim:

- Habitat/vegetation monitoring would evaluate the success of restoration and enhancement of peatland habitats. This would be achieved by recording changes to the structure and composition of the vegetation and species abundance, evenness and diversity, and extent of bare peat. Recording of impacts from deer/livestock would also be included in the monitoring programme.
- A representative sample of permanent quadrats or line transects would be established within the respective HMA to gather sufficient data to inform future management and assess the trajectory of plant species and habitats. The respective monitoring surveys would be carried out at the most appropriate times of year (e.g., flora surveys versus browsing impact surveys). Repeat surveys would be carried out in the same month in each monitoring year (Years 1, 3, 5, 10, 15) to gather comparable data. Photographs would also be taken of each sample quadrat/line transect, as well as overview photographs of the HMA.
- A blanket bog condition assessment utilising i) the latest Biodiversity Metric¹⁰ condition assessment pro-forma and methodology, and/or ii) a CSM⁹ blanket bog site condition survey, at representative locations within the HMA.
- Any peat hagg, gully, or surface reprofiling works, and any installed surface bunds, dams or drain blocking, would be monitored (including fixed point photography) to ensure works are successful over the first three years after works are completed. Remedial measures would be undertaken if restoration works have failed.
- The presence of regenerating and encroaching self-seeded conifer trees and the success or removal measures would be monitored.

7.2 Aims 2, 4 and 6: Promote native broadleaved woodland/scrub/hedgerow cover and increased biodiversity (HMA B, D and F)

Monitoring would be undertaken in HMAs B, D and F to ensure the establishment of the trees, scrub and hedgerow planted.

A professional forester would monitor the planted areas in Years 1-5 following planting to ensure successful establishment, specifically looking for evidence of damage (e.g., browsing) or disease. Failed specimens should be replaced in the consecutive winter (i.e., between November and March). The forester would also advise on whether any further management or maintenance is required to ensure the establishment of the trees, scrub or hedgerows. Any additional measures would be discussed and agreed within the BMG.

These areas would be monitored again by a professional forester in operational Year 10 to ensure that there are no issues with disease or invasive species and to determine if any thinning at this stage would benefit woodland/scrub establishment. Monitoring would be undertaken again in operational Year 20 when some thinning operations may be required in woodland in order to encourage growth of better trees and create more open woodland, further new enhancement/enrichment planting may also be considered at this stage. This would aid regeneration of seedlings and begin the process of establishing a mixed age structure.

Each HMAs respective target habitat type and target condition category would also be assessed and monitored using the latest Biodiversity Metric¹⁰ condition assessment pro-forma and methodology with the following habitat specific intervals:

- HMA B – Broadleaved Woodland: Year 10 and every 5 years thereafter;
- HMA D – Mixed Scrub: Years 5, 7, 10 and every 5 years thereafter; and
- HMA F – Hedgerows: Years 3, 5, 7, 10 and every 5 years thereafter.

7.3 Aims 3 and 5: Grassland and SSSI Restoration through Bracken Control (HMA C and E)

Monitoring would likely include:

- Bracken monitoring, such as walkover surveys and mapping extent and change over time.
- Grassland monitoring through the establishment of a representative sample of permanent quadrats/line transects to record changes to the composition of the vegetation and species abundance, evenness and diversity. Recording of impacts from deer/livestock would also be included in the monitoring programme. The respective monitoring surveys would be carried out at the most appropriate times of year. Repeat surveys would be carried out in the same month in each monitoring year (Years 1, 3, 5, 10, 15) to gather comparable data. Photographs would also be taken of each sample quadrat/transect, as well as overview photographs of the HMAs.
- A relevant grassland condition assessment utilising i) the latest Biodiversity Metric¹⁰ condition assessment pro-forma and methodology, and/or ii) a CSM⁹ grassland site condition survey, at representative locations within the HMAs.

8 REPORTING & BEMP REVIEW

A report would be submitted by the wind farm owner to the BMG in Years 1, 3 and 5 of operation, the frequency of reporting after Year 5 would be agreed by the BMG. This report will detail:

- Management undertaken in previous year(s);
- Monitoring undertaken, results and discussion of results; and
- Management and monitoring proposed for the following year(s).

The BMG may meet periodically to discuss the reports and management of the Site, if this is considered necessary by the members of the BMG.

Where monitoring indicates any management objectives are not met, further management prescriptions or interventions would be agreed by the BMG.

The requirement for the measures, monitoring and reporting following year 15 of the operational phase would be dependent on the results of the monitoring which would be discussed and agreed within the BMG in year 15, or as agreed in writing with the BMG.

In addition, the BEMP would be reviewed by the BMG every five years from its commencement, or earlier if the BMG consider it necessary. The purpose of the review will be to assess the effectiveness of the proposed management prescriptions at achieving the aims and objectives of the BEMP. If necessary, such measures may be amended by the BMG.

9 SUMMARY

The OBEMP for the Proposed Development, as outlined above, proposes an extensive suite of habitat and biodiversity compensation and enhancement measures on and around the Site, for a variety of habitat types and includes peatland restoration/enhancement, native broadleaved woodland and scrub creation/enhancement, grassland restoration (within a related SSSI and more widely), bracken control, and creation of native species-rich hedgerows. All of these biodiversity creation and enhancement measures will benefit local flora and fauna and result in significant net gains for biodiversity of +20% for area-based habitats and +1120% for linear habitats during the operational period of the Proposed Development.

ANNEX A. MANAGEMENT AND MONITORING TIMETABLE

Table A-1 Management Timetable

Year	0*	1**	2	3	4	5	6	7	8	9	10	11	12	13	14	15...
Work Item	Year of Implementation															
Management Prescriptions																
Drain blocking, damming, and/or reprofiling, and peat hagg/gully reprofiling (HMA A)	✓	✓														
Conifer encroachment/regeneration removal (HMA A)		✓	Throughout lifetime of BEMP, as necessary and informed by BEMP monitoring.													
Livestock/deer management (HMAs A, B & D)		✓	Throughout lifetime of BEMP, as necessary and informed by BEMP monitoring.													
Bracken control & management for woodland/scrub establishment (HMA B & D)	✓	✓	As necessary and informed by woodland monitoring by a professional forester.													
Bracken control & management for grassland restoration (HMA C & E)	✓	✓	Throughout lifetime of BEMP, as necessary and informed by BEMP monitoring.													
Felled ancient woodland trees and soils translocation as per Prescription 2.3 (HMA B)	✓															
Tree & scrub planting & woodland enhancement (HMA B & D)	✓	✓														
Native hedgerow planting/creation (HMA F)	✓	✓														
Stock fencing as required to facilitate trees/ scrub/ hedgerow establishment (HMAs B, D & F)	✓	✓														
Control competing vegetation in the first two years of hedgerow establishment (HMA F)	✓	✓														
Removal of tree tubes (Management Units B & D)											✓ ²⁸					
Hedgerow management as per Prescription 6.4 (HMA F)			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Excluded activities as per Prescription 1.5 (all HMAs)	Throughout lifetime of BEMP.															
Monitoring																

²⁸ Fast growing species may require the removal of trees guards before Year 10, to prevent damage. This would be informed by forestry monitoring surveys.

Year	0*	1**	2	3	4	5	6	7	8	9	10	11	12	13	14	15...
Inspection of peatland restoration areas and integrity/success of hagg/gully reprofiling, drain and gully blocking/reprofiling (HMA A)		✓	✓	✓												
Vegetation monitoring and bog condition assessments (HMA A)		✓		✓		✓					✓					✓
Vegetation monitoring and grassland condition assessments (HMA C & E)		✓		✓		✓					✓					✓
Bracken Extent Monitoring (HMA C & E)		✓		✓		✓	Throughout lifetime of BEMP, as necessary and informed by BEMP monitoring									
Woodland/scrub/hedgerow establishment/growth monitoring – (HMAs B, D and F ²⁹)		✓	✓	✓	✓	✓					✓					
Broadleaved woodland condition assessment (HMA B)											✓					✓
Mixed scrub condition assessment (HMA D)						✓		✓			✓					✓
Hedgerow condition assessment (HMA F)				✓		✓		✓			✓					✓
Reporting / Reviews																
BEMP Report		✓		✓		✓	Reporting schedule after Year 5 to be agreed by the BMG									
BMG 5-year review of BEMP						✓					✓					✓

* Construction Phase

**First year after final commissioning of the Proposed Development.

²⁹ Following initial planting, any failed specimens recorded during forestry monitoring surveys would be replaced during a ‘beating up’ second planting period to be determined.