

# **Coille Beith Wind Farm**

# **Technical Appendix 6.4: Outline Nature Enhancement Management Plan**

June 2025



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## 1. Introduction

#### 1.1 Overview

- 1.1.1 This Technical Appendix details the enhancement measures that would be implemented for the Coille Beith Wind Farm (hereafter referred to as the 'Proposed Development'). Mitigation measures that would be adopted are detailed in **Chapter 6** and **Chapter 7** (EIA Report Volume 2).
- 1.1.2 This Outline Nature Enhancement Management Plan (ONEMP) accords with the National Planning Framework 4 (NPF4) policies as outlined herein.
- 1.1.3 The Proposed Development, together with this associated ONEMP, has been sensitively designed around areas of deeper peat (refer to **Chapter 8**, EIA Report Volume 2), and has minimised the loss of priority peatland of possible national interest. A key focus of Policy 3 of NPF4 is biodiversity enhancement through restoration of degraded habitats and strengthening nature networks, which this ONEMP delivers. Furthermore, NPF4 Policy 5 provides significant regard and protection for peatland and carbon-rich soils, with restoration of peatland habitats a key component. As such, peatland restoration of degraded habitats is proposed within the Site.
- 1.1.4 This Technical Appendix presents outline nature enhancement management principles to be finalised in consultation with NatureScot and The Highland Council (THC) following receipt of planning consent and thereafter implemented as a Nature Enhancement Management Plan (NEMP) in accordance with a suitably worded condition of consent.
- 1.1.5 The finalisation of the ONEMP (into an agreed NEMP) would be completed prior to commencement of development, with the NEMP being implemented by the end of the first year of operation of the Proposed Development. The NEMP would remain in place as agreed, subject to monitoring of effectiveness, for the remaining operational lifetime of the Proposed Development as consented. A Steering Group and Review Committee (SGRC) comprising of NatureScot, THC, and Coille Beith Wind Farm Limited (the Applicant) would be set up to oversee the effectiveness of the NEMP.
- 1.1.6 The NEMP would be prepared, and the measures therein would provide significant biodiversity enhancement, which is compliant with NPF4.
- 1.1.7 This report should be read with reference to **Figure 6.8** (EIA Report Volume 3a).

## 2. On-site Conditions and the Proposed Development

- 2.1.1 Detailed baseline habitat descriptions of the Site are provided within **Chapter 6** (EIA Report Volume 2) and **Technical Appendix 6.1** (EIA Report Volume 4). Information with respect to the peat and hydrology interest on the Site, are provided within **Chapter 8** (EIA Report Volume 2).
- 2.1.2 In summary, the Site is predominantly commercial plantation forest with pockets of open habitat predominantly in the north and south. A number of watercourses flow through the Site, and most flow into the River Oykel to the north/ northeast of the Site. The Site is largely composed of dense Sitka spruce and lodgepole pine plantation averaging around 15 m tall. There is one large open area around the centre of the Site focussed around Beinn Chreagach hill, opening out further still towards the buildings at Brae and the River Oykel in the north of the Site. The southern and western edges of the Site are defined by the high tops of the surrounding hills, chiefly Carn na Bo Maoile at approximately 400 m. The open habitats largely consist of wet heath, acid grassland, and marshy grassland with bog communities largely being confined to forest rides and the high ground in the south. There are also several patches of natural broad-leaved woodland, mostly confined to burn gullies.
- 2.1.3 Within the Site (minus the access routes) there is 194.081 ha of Priority Peatland of Possible National Interest (principally mosaics containing M17a and/or M19a), and a combined 106.051 ha of Priority Peatland Not of Possible National Interest (mosaics of M17a and/ or M19a, or M20), in accordance with NatureScot guidance criteria (NatureScot, 2023)<sup>1</sup>. There is no priority peatland of Possible National Interest identified along the western access route (nor any likely along the eastern access route).
- 2.1.4 The condition of the peatland on-site is typically degraded and is chiefly influenced by the following factors:
  - The sloping (at times steep) topography has resulted in fragmented mosaics of M15b with either M19a/M20 or M17a. Steeper, well-drained wet heath slopes are interspersed with flatter or more gently-sloping areas, where deeper peat has been able to accumulate. There are no true areas of extensive blanket bog (of near-natural).

<sup>&</sup>lt;sup>1</sup> NatureScot (2023). Advising on peatland, carbon-rich soils and priority peatland habitats in development management. November 2023.



- Most of the blanket bog habitats on-site are situated adjacent to the commercial forestry plantation, and as such are highly modified/degraded. Furthermore, some man-made drains have been dug at these locations which have acted to dry the peatland out, and evidence of hagging/bare exposed peat/erosion is a common feature.
- 2.1.5 As a result of these factors, the peatland habitats on-site are in a generally poor condition, with some localised variation. Further information is provided in **Technical Appendix 6.1** (EIA Report Volume 4). Areas found with at least some of the above features which are indicative of degradation were selected as potential areas for peatland restoration (see Aim 1, below).
- 2.1.6 The Proposed Development would result in the loss of modest areas (in the context of the extent on-site, and the wider area) of 2.683 ha Priority Peatland of Possible National Interest directly (principally mosaics containing M17a and/or M19a), and 6.657 ha indirectly (out to 10 m), although the latter is considered less likely to occur.
- 2.1.7 Furthermore, 2.296 ha and 0.208 ha, respectively, of Priority Peatland Not of Possible National Interest (principally mosaics containing M17a and/or M19a) and Priority Peatland Not of Possible National Interest (mosaics containing M20, and not M17a or M19a) would be directly lost (respectively 7.047 ha and 0.25 ha indirectly).
- 2.1.8 Note, the western access route would result in the direct loss of only 0.065 ha M17a Priority Peatland (Not of Possible National Interest, given it is drained and/or actively eroding). Indirect loss would be 0.316 ha of the M17a, although given the construction works for the western access route would be shallow excavations (<1 m) indirect effects out to 10 m are considered unlikely.

## 3. **Overview of Aims and Objectives**

### 3.1 Approach to ONEMP

- 3.1.1 The Proposed Development has been designed to minimise potentially significant effects on sensitive ecological and ornithological features and peat reserves. A description of the Proposed Development is provided **Chapter 2** (EIA Report Volume 2).
- 3.1.2 The purpose of the NEMP as implemented would be to ensure creation and ongoing management of habitats at the Site to enhance biodiversity in accordance with the principles outlined in NPF4, Policy 3. The intent of Policy 3 is to 'protect biodiversity, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks', with the outcome that 'biodiversity is enhanced and better connected including through strengthened nature networks and nature-based solutions'.
- 3.1.3 This ONEMP considers NatureScot guidance (Scottish Natural Heritage, SNH, 2016)<sup>2</sup> guidance on the factors to consider and include in habitat management plans.
- 3.1.4 The ONEMP includes four key aims to improve and enhance biodiversity at the Site:
  - Enhance and restore the peatland;
  - Enhance fisheries and other aquatic wildlife habitats through riparian tree planting;
  - Improve opportunities for nesting birds, roosting bats, and other notable species; and
  - Improve the condition of Ancient Woodland Inventory (AWI) habitat.
- 3.1.5 Opportunities for restoration and enhancement of peatland have been identified which in turn would aim to enhance the biodiversity, flood storage, and carbon sequestration/storage of the Site. Further enhancement works are proposed which would include improvement in the quality of habitats on-site (including areas of the AWI, and with benefits for wildlife like invertebrates), increasing nesting and foraging opportunities for wildlife, including birds and bats on-Site, improving habitat connectivity through the Site, and providing benefits to aquatic wildlife through riparian tree planting. These measures would have multi-faceted benefits for biodiversity and would improve habitat connectivity and nature networks in, and through, the Site.
- 3.1.6 Impacts on protected species or neighbouring habitats would be minimised during the implementation of the NEMP, and derogation licences would be obtained from NatureScot, if necessary.
- 3.1.7 The aims, objectives, and habitat management measures outlined herein would be further refined and prescribed through detailed on-site investigation work and further consultation with NatureScot and THC, post-consent.

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<sup>&</sup>lt;sup>2</sup> SNH (2016). Planning for development: What to consider and include in Habitat Management Plans. Version 2, March 2016.

## 4. Accordance with NPF4

- 4.1.1 This ONEMP, and subsequent NEMP, accords with the NPF4 policies which are relevant to development proposed on peatland, carbon-rich soils, and priority peatland. As well as tangible enhancements in terms of biodiversity and woodland/tree cover.
- 4.1.2 The Proposed Development is sensitive to the location of deeper areas of peat (see **Figure 8.9**, EIA Report Volume 3a), as well as (where possible in the context of design constraints) Priority Peatland of Possible National Interest. A key focus of Policy 3 of NPF4 is that significant biodiversity enhancement through restoration of degraded habitats and strengthening nature networks is delivered. Furthermore, NPF4 Policy 5 provides significant regard and protection for peatland and carbon-rich soils. As such, ditch blocking to restore degraded bog habitat is proposed within the Site.
- 4.1.3 NPF4 Policy 6 also states that "*development proposals that enhance, expand and improve woodland and tree cover will be supported*". The ONEMP will aim to enhance, improve, and/or plant new trees as part of the design. Tree planting is accordingly proposed for the Proposed Development, along the northern side of the Allt a' Phris Mhoir and the Allt a' Bhraigh in terms of riparian tree planting. Enhancement of the existing plantation woodland in the east of the Site (within an area on the AWI) is also proposed principally through the removal of conifers.
- 4.1.4 Within this ONEMP, the watercourses to be targeted for riparian tree and woodland planting (as stated above), would improve aquatic conditions for wildlife, as well as providing shelter and foraging opportunities for bird species and improving habitat connectivity for foraging and commuting bats. Riparian planting would also help slow waterflows to support flood risk management and can improve water body status, as stated by Scottish Forestry<sup>3</sup>.

## 5. Buglife Partnership

- 5.1.1 The Applicant has a partnership with UK charity Buglife a conservation trust focusing on the protection and enhancement of invertebrates in the UK. Invertebrates are key to healthy ecosystems. From pollination, dispersing seeds, providing food for wildlife, recycling nutrients, and cleaning water, insects and pollinators play a critical role in life on our planet; without them whole ecosystems would collapse. In a UK wide study, it was found that the UK's flying insect population has decreased by as much as 58.5 % in the last 20 years (Ball *et al.*, 2022)<sup>4</sup>, this decline could potentially be fatal for habitats and ecosystems across the UK as well as many ecosystem services we rely on. Resources available, as well as the extent of habitat restoration areas provided, mean that renewable energy projects can play a pivotal role in halting this dramatic decline. The partnership between the Applicant and Buglife allows bespoke habitat management measures to be incorporated into this ONEMP (and subsequent NEMP, if the Proposed Development is consented), helping achieve sustainable populations of invertebrates locally and, in light of NPF4 Policy 3, support in delivering biodiversity enhancement within, and improving habitat connectivity through, the Site.
- 5.1.2 Note, through consultation, Buglife (correspondence dated 3<sup>rd</sup> March 2025) confirmed they are satisfied with the principles of the enhancement measures which have formed the basis of this ONEMP, for the Proposed Development. Buglife added that the enhancement measures are in accord with the recommendations for the nearby Kyle of Sutherland Rivers Important Invertebrate Area (IIA), which follows the River Oykel and the River Cassley and their tributaries. The IIA is selected for supporting a nationally and internationally important population of the freshwater pearl mussel. Measures including establishing woodland around watercourses are included for the IIA, as they are with respect to the Proposed Development (and detailed in this ONEMP).

## 6. Aim 1: Enhance and Restore Peatland On-Site

### 6.1 Objective 1: Promote Improved Structural Diversity and Condition of Existing Peatland

6.1.1 This objective would complement the Outline Peat Management Plan (**Technical Appendix 8.3**, EIA Report Volume 4) and mitigation commitments made in **Chapter 8** (EIA Report Volume 2). Vegetation cover would be re-established as quickly as possible on track and infrastructure verges and cut slopes, by re-laying of excavated peat acrotelm, to improve slope stability and provide erosion protection.

<sup>&</sup>lt;sup>4</sup> Ball, L., Still, R., Riggs, A., Skilbeck, A., Shardlow, M., Whitehouse, A. and Tinsley-Marshall, P. (2022). The Bugs Matter Citizen Science Survey: counting insect 'splats' on vehicle number plates reveals a 58.5 % reduction in the abundance of actively flying insects in the UK between 2004 and 2021. Available at: <a href="https://cdn.buglife.org.uk/2022/05/Bugs-Matter-2021-National-Report.pdf">https://cdn.buglife.org.uk/2022/05/Bugs-Matter-2021-National-Report.pdf</a>. (Accessed 04/06/2025).



<sup>&</sup>lt;sup>3</sup> Scottish Forestry (2024). Scottish Forestry Open Data. Target Woodlands for Riparain Planting. Available at: https://open-datascottishforestry.hub.arcgis.com/datasets/96f7766709644e669de11d01b472bf40/explore.(Accessed 26/02/2025).

Additional methods, including hydroseeding and/or use of a biodegradable geotextile, would be considered if necessary, in specific areas. Opportunities for habitat improvement to be considered include the following:

- Reinstatement of peat turves and vegetated peat divots.
- Use of mulches or heather brash (or occasionally a biodegradable geotextile, like jute) and re-seeding to protect areas of bare peat from further erosion.
- Management of grazing by livestock and deer in sensitive areas (see below).
- Re-profiling of peat hags, and hydroseeding if necessary and appropriate.
- Ditch-blocking to promote re-wetting (where this is appropriate and would not interfere with estate management or operational activities of the Proposed Development).
- 6.1.2 The success of the habitat improvement and peat restoration activities would be monitored on a regular basis for an ongoing period during the operational phase of the Proposed Development. The details would be included in the final NEMP to be agreed. This would include recording grazing pressure and to establish whether any change of grazing numbers is required over the course of the Proposed Development's lifespan. This could include the introduction of fencing to restrict livestock and/or deer, and changes to deer management on-site.
- 6.1.3 The identified areas for peatland restoration have been subject to some level of unfavourable management, particularly with the presence of peat hagging and exposed peat, and some artificial ditches. Blocking any suitable existing drains to retain rainwater will allow the water table to re-stabilise and peat-forming *Sphagnum* species to colonise areas that have dried or been affected by, for example, adjacent commercial forestry. Peat hags and exposed bare peat could also be treated through re-profiling and re-seeding to prevent further erosion. It is proposed that up to 60.21 ha of peatland could be restored from these measures, in those open peatland areas in the south of the Site.
- 6.1.4 It is considered that Aim 1 would result in the target peatland restoration for enhancement (considered in this Technical Appendix) and compensation/ mitigation (see **Chapter 6**, EIA Report Volume 2) being achieved. Restoration/creation of up to a combined 94 ha (including all peatland restoration/creation areas) would provide significant biodiversity benefits in accordance with NPF4. Of this 94 ha of peatland for restoration, 19 ha signifies enhancement and 75 ha compensation/mitigation.
- 6.1.5 Peatland restoration is also likely to increase the foraging and potentially the breeding habitat for groundnesting species like passerines and also, at least some, waders, where these areas are further away from operational turbines.
- 6.1.6 Birds will benefit from areas of peatland being re-wetted as this will increase the foraging potential (invertebrate prey in the soil and attracted by better conditioned peatland) and make the ground softer for bird's beaks (like waders) to probe. There are likely to be areas which are on slightly higher ground/mounds such as tussocks which will remain dry for nesting, and accordingly there will be benefits to both breeding and foraging birds, which will both be important for breeding success.
- 6.1.7 It is considered that the greatest chance of success of peatland restoration will be those habitats the greatest distance from the forestry on-site, where any drying effects of the forestry will be limited.

#### 6.2 Objective 2: Forest to Bog Restoration Through Tree Clearance

- 6.2.1 There is up to 17 ha of currently commercial forestry which could be restored back to peatland, in the centre of the Site. The 18 ha comprises of two distinct blocks of forestry, and the enhancement would involve felling of existing forestry and conversion back to peatland.
- 6.2.2 At the Site, new techniques under trial in Forest and Land Scotland (FLS) owned estates in Scotland will be applied for the forest to bog restoration. Trees will be felled to as close to ground level as possible (ideally with tree shears). Following felling, all brash will be removed, and residual stumps either drilled and broken or flipped from their ridges into adjacent furrows. The ground surface will then be cross-tracked by low ground pressure plant to 'smooth' the bog surface. Peat will then be placed at one of two target depths 0.3 m (on shallower terrain) and 0.15 m (on slightly steeper terrain, but still <7°). Where acrotelmic peat is available (with bog species), this will form the top surface, where absent, seeding using locally appropriate seed stock will be undertaken to encourage rapid recovery of bog species. Where local ground conditions indicate the need to do so, trench bunds will be cut across the former ridge and furrow alignments to provide a hydrological seal to placed peat. Reinstated peat will be monitored and additional seeding or repair undertaken as required throughout the life of the Proposed Development (further details with regards to peat reuse is provided in **Technical Appendix 8.3** (EIA Report Volume 4).
- 6.2.3 Note, some of the tree debris would be used for creating log piles and hibernacula on-site for wildlife such as invertebrates, small mammals and herpetofauna. Encroachment from forestry saplings would



be controlled during the monitoring period and over the course of the lifespan of the Proposed Development, as agreed.

### 6.3 Objective 3: Key-Hole Around Turbines and Restore Back to Peatland

- 6.3.1 Key-holed areas (Bat Exclusion Areas (BEAs)) around turbines (totalling 16.79 ha, which does not include the Proposed Development's footprint) are required for the necessary 'bat buffers' in accordance with NatureScot guidance (2021)<sup>1</sup>; see **Chapter 6**, EIA Report Volume 2).
- 6.3.2 Key-holed areas will be subject to further on-site investigation to check for the presence of features such as ditches that could be blocked (but given due regard for adjacent commercial forestry), or exposed peat for example, and keeping the key-holed area free from encroaching invasive conifer saplings and thus improving the condition and quality of the peatland which currently lies underneath the commercial forestry.
- 6.3.3 Peat excavated from infrastructure footprints will be used to support peatland restoration within BEAs that will be cut around each turbine location. These BEAs involve felling of trees within a set distance of each turbine to minimise collision risks with bats, and are maintained by the wind farm operator for the operational life of the wind farm. As a result, they are ideal habitat restoration targets and their management falls within habitat management proposals for the wind farm.
- 6.3.4 At the Site, new techniques under trial in FLS owned estates in Scotland will be applied within the BEAs. These will follow the same approach as for the forest to bog restoration area (detailed above). Areas of steeper slope have been excluded and therefore only a subset of BEAs have been specified for this reuse approach. Where acrotelmic peat is available (with bog species), this will form the top surface, where absent, seeding using locally appropriate seed stock will be undertaken to encourage rapid recovery of bog species. Where local ground conditions indicate the need to do so, trench bunds will be cut across the former ridge and furrow alignments to provide a hydrological seal to placed peat. Reinstated peat will be monitored and additional seeding or repair undertaken as required throughout the life of the Proposed Development (further details with regards to peat reuse is provided in **Technical Appendix 8.3** (EIA Report Volume 4).
- 6.3.5 A number of invertebrates would likely benefit from the restoration and creation of peatland habitats onsite.

## 7. Aim 2: Enhance Fisheries and Other Aquatic Wildlife Habitats On-Site Through Riparian Tree Planting

#### 7.1 Objective 1: Management of Bank-Side Vegetation

- 7.1.1 Fish habitat surveys identified the Allt a Phris Mhoir and the Allt a Bhraigh as being suitable for riparian tree planting, with the Allt a Bhraigh appraised as potentially suitable for salmonids and freshwater pearl mussel (refer to **Technical Appendix 6.4**, EIA Report Volume 4). These watercourses tribute into the River Oykel Special Area of Conservation (SAC), with the Allt a Bhraigh directly connected to the River Oykel. Measures to improve conditions of the watercourses for aquatic wildlife are therefore prudent given the adjoining River Oykel SAC is designated for Atlantic salmon and freshwater pearl mussel.
- 7.1.2 Native riparian tree planting can deliver benefits for aquatic species, including the casting of some shade, maintenance of cool water temperatures, provision of cover and sources of food from in-falling litter and insects. The cooling of water temperature is particularly key given the increasingly warming climate, and the negative impact this is likely to have on aquatic wildlife. A study undertaken in 2022 found that climate change poses a significant risk to aquatic invertebrates due to the intrinsic link between physical properties of freshwater ecosystems and the biological traits of the insects, and concluded that particular hotspots to these effects are upland habitats within the UK<sup>5</sup>. It therefore recommends that these habitats should be prioritise in terms of mitigation measures to reduce the impact climate change is having of the aquatic insect communities.
- 7.1.3 Areas for riparian tree planting would remain sensitive to the potential for exacerbating potential impacts upon such species groups resulting from the Proposed Development (e.g. tree planting on sensitive bog habitat/deeper peat). Areas of planted trees would be protected from grazing pressure likely through the construction of marked fencing (which would be at least temporary and may be removed if grazing pressure is not considered an issue, as trees establish).
- 7.1.4 The area proposed for riparian tree planting is shown in **Figure 6.8** (EIA Report Volume 3a) and would be along the Allt a Phris Mhoir and the Allt a Bhraigh in stretches with low or no tree cover. The lengths

<sup>&</sup>lt;sup>5</sup> Craig R. Macadam1, Judy England and Richard Chadd (2022) The vulnerability of British aquatic insects to climate change. Knowledge & Management of Aquatic Ecosystems, 423, Climate change impact on freshwater communities and ecosystem functioning. 31 January 2022.



of the area proposed is up to 9 ha along the Allt a Phris Mhoir, and the Allt a Bhraigh. The specific area for riparian planting would be agreed through consultation (see below) at the detailed design stage.

- 7.1.5 The identified watercourses have been identified by the Scottish Government as watercourses which should be priorities for riparian tree planting<sup>6</sup>. These watercourses are also an appropriate distance from proposed turbines to ensure the mortality risk to bats from collisions is not increased.
- 7.1.6 The prescriptive measures would be agreed with NatureScot, THC, and Kyle of Sutherland Fishery Board, and Rivers Trust. Liaison with The Forestry and Land Scotland is suggested to ensure that proposed native woodlands are ecologically consistent with landscape plans in the wider Strath Oykel landscape.
- 7.1.7 Riparian planting would have multi-faceted benefits for biodiversity. As well as providing shelter, feeding, and roosting opportunities for wildlife (including birds), riparian planting would increase habitat connectivity through parts of the Site for wildlife like foraging and/or commuting bats, and also invertebrates (see Arce *et al.*, 2023)<sup>7</sup> (whilst being sensitive to the locations of proposed turbines).

## 8. Aim 3: Improve Opportunities for Nesting Birds, Roosting Bats and Other Notable Species

### 8.1 Objective 1: Deploy Wildlife Boxes to Increase Opportunities for Nesting and/or Roosting Species

- 8.1.1 Measures for improving and/or creating opportunities for other nesting birds would comprise the installation of nest boxes, suitable for a range of species.
- 8.1.2 It is proposed that cavity-nesting boxes and open-nesting boxes would be installed within the Site, as well as boxes suitable for raptors and owls. Opportunities for roosting bats would also be increased on-site through the installation of bat boxes fixed to appropriate trees (these would be offset from operational turbines).
- 8.1.3 The target area for the location of bird and bat boxes would where there are large mature trees (not commercial trees) suitable for wildlife boxes to be fixed onto.
- 8.1.4 A bird nest box and bat roost box plan within the Site would be designed by a suitably competent and qualified ecologist for incorporation into the NEMP, with the final number, type and location of boxes confirmed in consultation with NatureScot, to be most relevant to the species assemblage present, and any local priorities.

#### 8.2 Objective 2: Deploy Log Piles to Increase Opportunities for Other Notable Species

- 8.2.1 Measures for improving and/or creating opportunities for other species would comprise the installation of log piles/hibernacula, suitable for a range of species (e.g. invertebrates, small mammals, amphibians, and reptiles).
- 8.2.2 Log piles/hibernacula would be created in woodland or in the open habitats situated adjacent to woodland edges within the Site. Log piles/hibernacula would each measure approximately 2 m x 2 m x 1 m in height and be constructed from logs sourced from vegetation clearances within the Site.
- 8.2.3 A log pile/hibernacula plan within the Site would be designed by a suitably competent and qualified ecologist for incorporation into the NEMP, with the final number, design and locations confirmed in consultation with NatureScot.

# 9. Aim 4: Improve the Condition of Woodland (Including some AWI Habitat)

#### 9.1 Objective 1: Restore Condition of AWI Habitat

9.1.1 There is 19 ha of ancient (of semi-natural origin) woodland on-site which although not classified as 'ancient' woodland given it is dated from 1860<sup>8</sup>, is still considered notable given it is on the AWI.

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<sup>&</sup>lt;sup>6</sup> See <u>https://marinescotland.atkinsgeospatial.com/nmpi/default.aspx?layers=1907</u>

<sup>&</sup>lt;sup>7</sup> Arce, A. P., Palt, M., Schletterer, M. and Kail, J. (2023). Has riparian woody vegetation a positive effect on dispersal and distribution of mayfly, stonefly and caddisfly species? Science of the Total Environment 879, 25 June 2023, 163137.
<sup>8</sup> As defined in NPF4.

- 9.1.2 The aim of restoration of this AWI area is to maximise the ecological integrity of the area. Ecosystems with greater ecological integrity are richer and more resilient. They are characteristic of their locality and more self-regulating. Up to 19 ha of the AWI habitat would be considered for restoration, with the most enhancement measures informed by more detailed Site investigation works, and measures would be implemented in agreement with the landowners, NatureScot, and THC. An action plan and programme will be agreed upon with the above listed stakeholders. This would include survey and assessment (of remnant features, associated threats and how to prioritise action and ongoing monitoring) of the AWI to determine the key site-specific principles to achieve the best restoration outcomes (and will consider guidance of ancient woodland restoration by the Woodland Trust, 2019)9. Some examples of key principles (but not limited to) of AWI restoration are listed below:
  - Restoration thinning;
  - Thinning for regeneration and complexity;
  - Vegetative regeneration;
  - Understorey management;
  - Gradual restoration and longer-term retention at the expense of non-native trees; and
  - Potentially some native tree planting (if considered necessary), with natural regeneration of native species preferred.

#### 9.2 **Objective 2: 'Feather' Commercial Forestry**

- Edge feathering is the process of re-creating a transitional zone between two different habitat types. It is 9.2.1 proposed to 'feather' commercial forestry edges, where appropriate, and where it adjoins open (peatland) habitat particularly. This will help buffer peatland areas from forestry and potentially reduce drying effects of peatland from trees on peripheral areas.
- 9.2.2 'Feathering' introduces a diverse vertical structure which can provide shelter, cover and can improve opportunities (for example foraging, roosting and nesting) for a variety of wildlife. The precise locations of the 'feathering' (and most appropriate approach) would be the focus of on-site investigation to ensure the most suitable localities are chosen without compromising other key features, such as any areas of deeper peat and ground-nesting wader habitat (as well as avoiding potentially increased 'edge-effects' on, for example, ground-nesting waders which were recorded in peripheral open habitats on, and around, the Site).

#### Steering Group and Review Committee (SGRC) 10.

- 10.1.1 A SGRC would be established to oversee the effectiveness of the NEMP. For the first five years of implementation, the SGRC would meet or correspond at least annually.
- 10.1.2 The following bodies would be invited to form part of the SGRC:
  - The Applicant of the Proposed Development; •
  - The Landowners (or their representatives):
  - Independent ecologist appointed by the Applicant;
  - THC:
  - NatureScot:
  - Scottish Environment Protection Agency (SEPA);
  - Buglife; and
  - The Kyle of Sutherland Salmon Fishery Board and Rivers Trust.

#### 11. Monitoring

- Monitoring is proposed as part of the NEMP in operational years 1, 2, 3, 5, 10, and 15 (and the 11.1.1 requirement for additional monitoring after year 15 determined by monitoring results in year 15) of the Proposed Development and would consist of checks of the habitat enhancement measures detailed in the NEMP. The Applicant would provide a summary of the NEMP activities and monitoring results to the SGRC each year of monitoring. The frequency of monitoring and reporting thereafter would be agreed with the SGRC.
- A monitoring programme to include compliance checking of the implementation of prescriptive measures 11.1.2 along with the monitoring of the effectiveness of such measures would be established and agreed in consultation with NatureScot and THC. This would allow the success of measures outlined in the NEMP to be determined, and any requirement for remedial measures to be adopted. This would likely include measures to monitor the condition of peatland comprising botanical survey and dipwells<sup>10</sup>. monitoring



<sup>9</sup> Woodland Trust (2019). Ancient woodland restoration: Phase two: recovery of the wider ecosystem. Available at: Module 4: Ancient woodland restoration. Phase 2: recovery of the wider ecosystem. (Accessed on 07/05/2025). <sup>10</sup> Common and easiest method to measure water levels/depth of a water table, to help monitor the success of rewetting enhancement measures.

tree planting to ensure any failed stock can be identified and readily replaced, and monitoring the status of deadwood and using any stored excess deadwood to 'top-up' where required. This would also include identifying evidence of deer grazing and whether deer management as undertaken on the Site is appropriate for enhancing biodiversity, or whether changes to the deer control are required (for example, increased culling); with due regard given to NatureScot guidance (SNH, 2014)<sup>11</sup>, and Putman *et al.* (2011)<sup>12</sup>. Any alterations required to deer management would be discussed with the landowner. The details would be included in the final NEMP to be agreed by a suitable planning condition.

- 11.1.3 It is proposed that monitoring of the success of AWI restoration would be undertaken, it is anticipated that on-going management will be required within the first few years to ensure measures implemented are contributing to successful restoration.
- 11.1.4 Post-construction monitoring (bat carcasses searches) would be undertaken with the post-consent bat monitoring agreed with THC and NatureScot, including a protocol for reporting collisions to NatureScot, and in what circumstance remedial actions would be required.
- 11.1.5 The requirement for any updated baseline surveys to act as 'Year 0' for monitoring purposes would also be identified and undertaken at the appropriate time (such as, within the first year of operation of the Proposed Development and during the main growing/breeding season March to August, inclusive).
- 11.1.6 The NEMP would be intended to remain a live document which would be updated and amended as necessary, based on results of the Site investigation works and monitoring. The SGRC would be kept informed of any proposed changes to the NEMP and their agreement sought as necessary, given the SGRC would oversee the effectiveness of the NEMP.

may occur. Mammal Review, 41 (3), pp 175-196.



 <sup>&</sup>lt;sup>11</sup> SNH (2014). Planning for development: What to consider and include in a deer assessments and management at development sites. Scottish Natural Heritage, Inverness.
 <sup>12</sup> Putman, R., Landbein, J., Green, P. & Watson, P. (2011). Identifying threshold densities for wild deer in the UK above which negative impacts