Technical Appendix 7.4: Outline Biodiversity Enhancement Management Plan

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7.4.1 Introduction

7.4.1.1 This Outline Biodiversity Enhancement Management Plan (OBEMP) sets out proposed measures for habitat restoration and enhancement within the Site, as shown on **Figure 1.1 (EIAR Volume 3a)**.

7.4.1.2 The Site is dominated by degraded and intact blanket bog (M19, M17), mountain heath and willow scrub (H13, H15), wet and dry heath habitats (M15, H10a respectively) and various types of woodland (including mixed broadleaf and coniferous woodland, coniferous plantations and Long-Established woodland of Plantation Origin (LEPO) which is present on the Ancient Woodland Index (AWI1)). Significant effects are predicted on peatland habitats (blanket bog, flushes and mire) and montane heath and scrub (UK BAP habitat and Annex 1 Priority Habitat) from habitat loss and modification as part of the Proposed Development. Mitigation is required to restore areas of previously active/inactive mire habitat, as discussed in **Chapter 7: Ecology (EIAR Volume 2)**.

7.4.1.3 The conditions on the Site are favourable for the active restoration of peatland habitats as much of the Site shows signs of past drainage and areas of degraded blanket bog. Degradation and drying of bog habitats are likely to have occurred from previous management of the peat, artificial drainage and the development of the existing Novar 1 Wind Farm. This has led to the degradation of peatland within the Site which now has the capacity to be regenerated and restored. Reduction of water in blanket bog communities prevents the establishment of peat forming plant communities such as those where bog mosses Sphagnum spp. are dominant. Blanket bog habitats are present frequently throughout the Site and are shown on **Figure 7.1 (EIAR Volume 3a)**.

7.4.1.4 Biodiversity compensation and enhancement measures have been designed to achieve restoration of 135.7 ha of degraded blanket bog and other peat habitats in response to a predicted loss of 13.43 ha of blanket bog as a result of the Proposed Development. The remainder of available habitats which are currently unaffected under the Proposed Development are presented in **Figure 7.7**: **Areas Available for Peat Restoration (EIAR Volume 3a)**. It is also assumed that opportunities exist to restore peatland to a depth of up to 1 m in areas where turbine infrastructure, hardstanding and Internal Tracks which were developed for the existing Novar 1 Wind Farm would no longer be required for the Proposed Development

7.4.1.5 Areas of montane heath and willow scrub within the Site were observed to be in an unfavourable-moderate condition and present an opportunity for regeneration and enhancement. Pressures on this habitat are likely to be similar to those on similar habitats nationwide in that the greatest threat to their improvement and expansion include those listed previously alongside over-grazing by local deer species.

7.4.1.6 Woodland planting would also be required to mitigate for the loss of woodland, including areas of LEPO woodland present on the AWI and various areas of mixed woodland as detailed in **Chapter 7 (EIAR Volume 2)**. It is estimated that 0.7 hectares (ha) of woodland replanting would be required to appropriately mitigate the loss of woodland associated with the Proposed Development. NatureScot released a consultation on 31st August 2026 on a potential Scottish Planning Biodiversity Metric (SPBM) for Scotland[1] that would be similar to requirements for biodiversity net gain (BNG) in England. However, at the time of preparation and submission of the EIAR, neither the SPBM or BNG are mandatory in Scotland, but National Planning Framework 4 (NPF4) does make biodiversity enhancement a requirement. An area is being made available for tree planting within Novar Estate on the immediate northern fringe of the woodland which forms the Novar SPA. This would avoid areas of nationally important or deep peat, and additionally provide opportunities to augment and improve the quality of a patch of woodland connected to the Novar SPA. In the unlikely event that planting within the wider Novar Estate is not deemed possible, alternative land parcels may provide the necessary opportunities for compensatory planting, provided the total replanted land meets the required 0.7 ha and provides suitable biodiversity enhancement. A final Biodiversity Enhancement Management Plan (BEMP), which would include specific prescriptions and confirmation of the peatland restoration location(s) and areas, and tree replanting/woodland enhancement would be agreed with The Highland Council (THC), in consultation with the landowner and NatureScot (NS), prior to the commencement of construction of the Proposed Development.

7.4.2 Outline Biodiversity Enhancement Management Plan

7.4.2.1 This OBEMP has been completed following best practice guidance from NS[2]. The aim of the plan is:

- To restore and enhance 147.7 ha of peatland habitat, within five years of commissioning of the Proposed Development subject to the outcome of ongoing landowner engagement. The restoration of 135.7 ha within the Application Boundary would meet the required target of 134.3 ha to achieve a 1:10 lost/restoration of bog habitats (f1a, fa5, f1a6) to compensate for that lost under the footprint of the Proposed Development. The 134.3 ha area exists within the Application Boundary and is available to the Applicant for restoration along with an additional 1.4 ha towards the 10% enhancement requirement of 13.4 ha. A further 12 ha for peatland restoration may also be available either within land controlled by Novar Estates, or at another appropriate location subject to the outcome of ongoing landowner engagement to achieve enhancement of 10% of the baseline as recommended by NatureScot;
- The amount being lost to the Proposed Development and the restoration and enhancement of a comparable area is intended to offset its loss. This will increase the quality and extent of an Annex I[3] habitat and compensate for habitat loss and modification incurred as a result of the Proposed Development;
- To work in conjunction with the Deer Management Plan provided as **Appendix 7.3: Deer Management Plan (EIAR Volume 4)** to reduce deer grazing pressure, where required, and improve the quality of montane heath habitat and protect potential new woodland areas on the Site; and
- To offset woodland habitat loss through replanting of 0.7 ha, within five years of commissioning of the Proposed Development. This will compensate for the loss of 75 trees along the widened Access Route (including some within the Novar Special Protection Area) incurred as a result of the Proposed Development.

7.4.2.2 The implementation of the final BEMP would also take into account the existing land management practices undertaken on Site and would work in tandem with these practices as far as is feasible.

7.4.2.3 The design and implementation of the final BEMP would be managed by the Applicant in consultation with the landowner and statutory consultees. Detailed method statements would be developed for the specific measures of the final BEMP, such as restoration methods that would encourage the

[1] https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/scottish-planning-biodiversity-metric

[2] Planning and development: habitats | NatureScot

[3] The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

abundance of bog-moss, encourage the regeneration of montane heath and protect areas of newly-planted woodland.

7.4.3 Peatland Restoration

7.4.3.1 It is assumed that suitable areas for peatland restoration would include areas of peat within the Site and areas of previous turbine foundations, hardstanding and Internal Tracks which would be obsolete following the decommissioning of the existing Novar 1 Wind Farm. This includes areas identified as f1a Blanket bog, f1a5 and f1a6, as shown in **Figure 7.7: Areas Available for Peat Restoration (EIAR Volume 3a)**. Peatland restoration efforts would focus on extending and improving areas of existing blanket bog or other vulnerable peatland habitats in lieu of fragmented areas along the Internal Tracks, which may in time suffer from being hydrologically isolated parcels of peat.

7.4.3.2 Areas of pre-existing hardstanding and Internal Tracks which are not required for the Proposed Development are assumed to be available for restoration. It is believed to be unlikely that any restoration of peat in these areas (2.7 ha) would be achievable to a depth of greater than 0.5 m at previous turbine foundations. Restoration of peat to this depth would not be sufficient to achieve a habitat capable of peat formation and is more likely to result in the generation of a peat-based heath habitat. Although this does not reflect restoration of blanket bog, the presence of heath habitats in these areas would contribute to the existence of a more productive peatland mosaic within the Site.

7.4.3.3 It is recommended that restoration works prioritise areas of peat which have been identified as being degraded, as shown in **Figure 7.2: UK Hab habitat Survey Results (EIAR Volume 3a)**. The final extent of these areas would be subject to refinement prior to completion of the final BEMP, but the area identified for restoration within the Site would be no less than 135.7 ha to achieve the recommended ratio of 1:10 lost: restored. The final areas identified also depend on additional practical considerations such as topography and connectivity to the wider Site.

7.4.3.4 Peat management and reinstatement during and following construction are detailed in the Outline Decommissioning and Construction Environmental Management Plan (ODCEMP) and the Outline Peat Management Plan (PMP) in **Technical Appendix 3.1** and **Technical Appendix 9.6 (EIAR Volume 4)**.

Management Prescriptions

7.4.3.5 The following measures would be undertaken to encourage the regeneration of peatland habitats:

- Raise the water table by blocking forest drains and managing any natural conifer regeneration on the restoration areas. Mapping of drains to be blocked and determination of the most appropriate method of blocking would take place in year 1 of the implementation of the final BEMP with brash from felled areas potentially used in that process. A survey would be carried out prior to blocking to identify the number, location and spacing of artificial dams required. Drain blocking would take place in agreement with the landowner. Work would occur between September and March to avoid disturbing breeding birds, amphibians and reptiles. Management of conifer regeneration would be as required;
- It is assumed that peat which would be excavated to facilitate the construction of the Proposed Development would be re-used to restore areas of hardstanding and Internal Tracks which would be removed as part of the decommissioning of the Novar 1 Wind Farm. Should there be additional peat remaining from excavations resulting from the Proposed Development, this material would be re-used in areas designated for peatland restoration as deemed appropriate. This would require surveys and planning prior to the selection of these areas and would be discussed with a suitably qualified ecologist, hydrologist, the client and the landowner;
- Peat for restoration would need to be removed in such a way as to ensure that catotelmic (lower level, non-living layers of peat) and acrotelmic (surface level, living layer of peat) are removed and stored separately. The volume of peat predicted to be excavated is approximately 60,358 m^3, as discussed in **Technical Appendix 9.6: Outline Peat Management Plan (EIAR Volume 4)**;
- Increase the abundance and distribution of bog-moss *Sphagnum spp*., particularly red bog-moss *S. capillifolium*, blunt-leaved bog-moss *S. palustre* and compact bog-moss *S. compactum*. If suitable habitat conditions are recreated, this could occur through natural regeneration. Active measures would be considered if natural regeneration is unsuccessful;
- Increase the abundance of other bog species, particularly heather *Calluna vulgaris*, cross-leaved heath *Erica tetralix*, hare's-tail cottongrass *Eriophorum vaginatum* and bog myrtle *Myrica gale*. If suitable habitat conditions are recreated, this could occur through natural regeneration. Active measures would be considered if natural regeneration is unsuccessful; and
- Manage deer grazing pressure through fencing and/or a reduction in deer numbers as agreed with the landowner. Deer numbers would be managed in accordance with the Deer Management Plan for the Proposed Development, provided as **Appendix 7.3: Deer Management Plan (EIAR Volume 4)**.

7.4.4 Woodland Offset Planting

7.4.4.1 All woodland offset planting would be undertaken off-Site and is currently proposed in the northern fringe of the Novar SPA in an area of degraded Scots pine woodland that is seasonally grazed. The extent of the planting areas would be subject to refinement prior to completion of the final BEMP but the area identified for restoration would be no less than 0.7 ha, which is the area required to achieve a comparable area of tree coverage to the 75 trees predicted to be lost along the widened Access Route. This would compensate for the area of LEPO and mixed woodland which is projected to be felled, as discussed in **Chapter 7 (EIAR Volume 2)**. The aim would be for an overall gain of higher biodiversity value woodland habitat off-Site with a block of enhanced woodland connected to the Novar SPA replacing scattered trees lost along the Access Route. The final woodland offset planting area would be confirmed in the final BEMP. In consultation with NatureScot, RSPB and Novar Estate and where feasible alongside existing land management, additional enhancement measures for capercaillie in the woodland present within the Site would be considered.

Management Prescriptions

7.4.4.2 The following measures would be undertaken to offset the woodland lost as a result of the Proposed Development to provide woodland that is of a higher ecological value than the woodland removed from the Site:

- Where possible, replanting areas would incorporate broadleaved woodland and mixed woodland, instead of a simple 'like for like' replacement of coniferous woodland plantation and broadleaved woodland. Broadleaved woodland would include species such as downy birch *B. pubescens* and alder *Alnus glutinosa*, which were recorded on the Site. As the planting is occurring off-Site and is not restricted by the soil conditions on-Site, other broadleaved species could also be planted, such as silver birch *Betula pendula* and sessile oak *Quercus petraea*, depending on soil conditions at the planting locations. Where possible, mixed areas would be planted and would include the aforementioned broadleaved species plus species such as Scots pine *Pinus sylvestris*;

- Woodland creation would follow Forestry Commission Scotland Bulletin Guidance[4]. Planting densities would be approximately 200 stems per hectare in blocks in and around the remnant Scots pine of the proposed area on the northern edge of the SPA at Baddans. Individual tree species should be planted in groups, with trees planted a minimum of 2 m apart. However, these planting guidelines would be dictated by the character of the Site and can be used flexibly. The species of tree to be planted would be determined further to ground investigation in year 1 of the implementation of the final BEMP. Woodland planting would take place in agreement with landowners. Planting would not take place in frozen or waterlogged ground. Planting within and next to an existing woodland would provide larger areas of higher quality woodland to support more species and the existing woodland would provide a source for the natural colonisation of ground flora in the newer woodland areas. The potential to plant or encourage native Scots pine ground flora of importance to capercaillie would also be investigated. Tree shelters/guards or fencing would be used to protect immature trees from grazing. Fencing of the area would be avoided as far as possible but a low stock fence may be required to prevent livestock entering the area;
- Where possible, any felled trees along the Access Route, particularly the largest mature trees would be left in-situ as deadwood in order to facilitate nutrient return to the ecosystem, provide new ecological niches and micro-niches for local wildlife and protected species, and to avoid damaging the existing mycological communities which are already present and established. Retention of felled trees would also allow for the retention of water in areas of woodland which are categorised by an underlying peat layer, as discussed above.

7.4.5 Montane Heath and Willow Scrub Enhancement

7.4.5.1 It is assumed that any area of montane heath or willow scrub (h1b6) that would not be directly affected by the Proposed Development would be available for enhancement. While conducting habitat surveys, ecologists on Site noted that the existing areas of montane heath and willow scrub were of moderate condition and would benefit from enhancement. As the main pressure on this habitat type is overgrazing by deer, it is recommended that the remaining areas of montane heath and willow scrub are isolated and protected by deer fencing. The erection of deer fencing would allow for a reduction of grazing pressure on these habitat parcels and allow a period of regeneration and unhindered growth, thus improving the conditions and quality of a rare habitat of international importance.

7.4.5.2 Any further deer management protocols are discussed in **Appendix 7.3: Deer Management Plan (EIAR Volume 4)** and are subject to consultation and agreement between the client, Novar Estate and the New Ross Deer Management Group (NRDMG).

7.4.6 Work Programme

7.4.6.1 A detailed work programme will be developed in consultation with THC and the landowner as part of the development of the final BEMP.

7.4.7 Funding and Duration

7.4.7.1 The final OBEMP and implementation would be funded in full by the Applicant and would continue for the lifetime of the Proposed Development i.e. 35 years.

7.4.8 Monitoring

Peatland Restoration

7.4.8.1 Vegetation surveys undertaken by suitably qualified ecological professionals would monitor the success of peatland restoration and highlight the need for any further management measures. Surveys would collect data on the structure and composition of the vegetation, and plant species abundance and diversity from permanent quadrats in the restored areas. Monitoring would commence in summer of year 1 of the implementation of the final OBEMP (during the first year of operation of the Proposed Development) and would be repeated during the operational life of the Proposed Development i.e. following initial baseline surveys in year 1, surveys would also occur in at least years 3, 5, and 10. The requirement for longer-term monitoring, e.g. in years 15, 20 and 25, would be subject to ongoing review of the results and agreement with statutory consultees.

7.4.8.2 If vegetation surveys record significant trampling or grazing by deer affecting the success of peatland restoration areas, then deer culling and/or fencing would be completed in line with the Deer Management Plan provided in **Appendix 7.3 Deer Management Plan (EIAR Volume 4)**. Culling numbers may need to be increased if deer are having an adverse effect on the restored habitats.

7.4.8.3 Monitoring of restoration activities, e.g. ditch/drainage blocking would also be undertaken to record progress in the completion of the physical works to install, maintain and, where necessary, repair those features. This monitoring would be completed by wind farm operations staff over the course of the first five years of operation of the Proposed Development. Any faults or issues identified during this monitoring would be addressed as soon as possible.

Woodland Offset Planting

7.4.8.4 New areas of woodland would require monitoring and management, particularly in the first 2-3 years when immature trees are establishing themselves. New trees would be inspected once a year to ensure they are not being choked by other vegetation, such as grass species, until tree shelters/guards are removed. Tree guards would be removed when the base of the tree reaches 7-10cm in diameter, typically 3-5 years after planting.

7.4.8.5 Vegetation surveys undertaken by suitably qualified ecological professionals would monitor the success of woodland offset planting and highlight the need for any further management measures. Surveys would collect data on the structure and composition of the vegetation, and plant species abundance and diversity from permanent quadrats in the planted areas. The success or failure of tree planting would be noted during each survey. If more than 25% of planted trees in an area of new woodland have failed, additional planting would be required. Monitoring would commence in summer of year 1 of the implementation of the final BEMP (during the first year of operation of the Proposed Development) and would be repeated during the operational life of the Proposed Development i.e. following initial baseline surveys in year 1, surveys will also occur in year 5. The requirement for longer-term monitoring, e.g. in years 10, 15, 20 and 25, would be subject to ongoing review of the results and agreement with statutory consultees.

7.4.8.6 If vegetation surveys on the Site record significant trampling or grazing by deer affecting the success of newly planted woodland, then deer culling and/or further fencing would be completed in line with the Deer Management Plan provided in **Appendix 7.3 Deer Management Plan (EIAR Volume 4)**. Culling numbers may need to be increased if deer are having an adverse effect on the new area of wet woodland within the Site.

[4] Forestry Commission Bulletin: Creating new native woodlands

7.4.8.7 Long-term management of new woodland areas would be undertaken by landowners in consultation with THC and NS, where required. Management may include deer control, selective thinning, replanting, and the control of invasive non-native species, such as rhododendron *Rhododendron ponticum*.

Mountain Heath and Willow Scrub Protection/Enhancement

7.4.8.8 Areas of montane heath and willow scrub designated for enhancement would require monitoring to ensure that deer exclusion methods are working to a sufficiently high level and are providing the necessary conditions for these habitat parcels to improve.

7.4.8.9 Preliminary vegetation surveys would be undertaken by a suitably trained ecologist to establish a baseline condition of montane heath on Site. Follow-up surveys would be conducted in years 2 and 3 post intervention. During these surveys, ecologists would work with specialists to ensure the security and performance of deer fencing. The requirement for longer-term monitoring, e.g. in years 10, 15, 20 and 25, would be subject to ongoing review of the results and agreement with statutory consultees.

7.4.9 Amendments

7.4.9.1 The final BEMP would be a live document and would be updated following monitoring results, unexpected events or changes in guidance. Approval by THC and NS would be sought for any amendments before revised measures are implemented.