

8. Technical Appendix 8.6: Outline Habitat Management Plan

8.1 Introduction

8.1.1 This Outline Habitat Management Plan (OHMP) sets out proposed measures for habitat restoration within the study area. The study area is the area within the site boundary, as shown on Figure 8.1.

8.1.2 The study area is dominated by wet modified bog with extensive areas of haggling and gullies and a loss of vegetation cover. Although no significant effects are predicted from the loss of a small proportion of blanket bog as part of the Proposed Development, an opportunity exists to restore areas of wet modified bog to blanket bog for the purpose of biodiversity enhancement as part of the good practice measures proposed in Chapter 8: Ecology. The site conditions in the study area are favourable for the active regeneration of peatland habitats. The M15 *Scirpus cespitosus-Erica tetralix* wet heath, which is located in four areas in the western part of the study area, and the M19/M17/M20 mosaic areas, which are located throughout the study area, are both likely to regenerate naturally following active measures to minimise peat erosion. These habitats are shown on Figure 8.4.

8.1.3 Existing conditions in the study area are influenced by deer and the study area is part of the Monadhliath Deer Management Group (MDMG), who have produced a Strategic Deer Management Plan (SDMP). Within the SDMP, a habitat management programme was devised to improve red deer habitat and provide environmental benefits, such as carbon storage, water quality management and nature conservation, as detailed in Technical Appendix 8.8. Improving the condition of blanket bog is one of the SDMP's aims.

8.1.4 A final management plan, which would include specific prescriptions and confirmation of the peatland restoration location(s), would be agreed with The Highland Council (THC), in consultation with landowners and Scottish Natural Heritage (SNH), prior to the commencement of construction of the Proposed Development.

8.2 Objectives of Outline Habitat Management Plan

8.2.1 This OHMP has been completed following best practice guidance from SNH (SNH, 2016). The purpose of the plan is:

- Within five years of commissioning of the windfarm, to restore and enhance a minimum of 13.92ha of blanket bog habitat within the study area. This will increase the quality and extent of an Annex I (1994) habitat and compensate for habitat loss incurred as a result of the Proposed Development; and
- work in conjunction with the deer management plan provided as Technical Appendix 8.5 to reduce deer grazing pressure and improve the quality of blanket bog in the study area.

8.3 Peatland Restoration

8.3.1 Suitable areas for peatland restoration would comprise actively eroding deep peat with only limited vegetation cover. The extent of these areas would be subject to refinement prior to completion of the final Habitat Management Plan (HMP) but the area identified for restoration would be no less than 13.92ha to account for the blanket bog permanently lost as a result of the Proposed Development. A further temporary loss would occur

depending on the number and location of the borrow pits but the actual area cannot be calculated effectively until the refinement stage. Restoration would aim to restore an area at least the same size as the area lost as a result of the Proposed Development. Ideally, there would be an overall gain of improved blanket bog habitat in the study area. The confirmed peatland restoration areas would be shown on a figure in the final HMP.

- 8.3.2 Peat management and reinstatement during and following construction are detailed in Technical Appendix 3.1: Draft Construction Environmental Management Plan (CEMP) and Technical Appendix 11.3: Peat Management Plan (PMP).

Management Prescriptions

- 8.3.3 The following measures would be undertaken to encourage the regeneration of degraded peatland habitats:

- raise the water table by blocking extensive hags and gullies up to 4m wide to prevent the drainage of water from bog areas. Determination of the most appropriate method of blocking would take place in year 1 of the implementation of the final HMP but excess peat excavated from construction areas could potentially be used where it is not required for reinstatement. 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 living layer of peat) are removed and stored separately. A survey would be carried out prior to blocking to identify the number, location and spacing of artificial dams required. Work would occur between September and March to avoid disturbing breeding birds, amphibians and invertebrates;
- prevent further erosion of hags and gullies and stabilise bare peat faces of hags and gullies wider than 4m. Gully sides would be reprofiled, revegetated and reseeded with a heather dominated species mix. In some exceptional situations, geotextiles may need to be used to stabilise the peat, (Yorkshire Peat Partnership, 2011a). Where overhanging vegetation is present, a 2m length of vegetation would be rolled back, retaining the root structure, while the peat underneath is removed to create a 33° slope (Yorkshire Peat Partnership, 2011b). The vegetation would then be rolled into its original position on the newly profiled slope. The feasibility and methodology of slope reprofiling would be assessed during the detailed survey;
- increase the abundance and distribution of bog-moss (*Sphagnum sp.*), particularly feathery bog-moss (*S. cuspidatum*), red bog-moss (*S. capillifolium*), and papillose bog-moss (*S. papillosum*). If suitable habitat conditions are recreated, this could occur through natural regeneration. Active measures would be considered in the unlikely event that natural regeneration is unsuccessful;
- increase the abundance of other bog species, particularly heather (*Calluna vulgaris*), hare's-tail cottongrass (*Eriophorum vaginatum*) and crowberry (*Empetrum nigrum*). If suitable habitat conditions are recreated, this could occur through natural regeneration. Active measures would be considered in the unlikely event that natural regeneration is unsuccessful; and
- manage deer grazing pressure through fencing and/or a reduction in deer numbers as agreed with landowners. Deer numbers would be managed in accordance with the deer management plan for the Proposed Development and the SDMP for the MDMG, provided as Technical Appendix 8.5 and Technical Appendix 8.8, respectively.

- 8.3.4 The implementation of the OHMP would also take into account the existing land management practices undertaken in the study area and would work in tandem with these practices.
- 8.3.5 The design and implementation of the final HMP would be managed by the Applicant's internal HMP management team in consultation with landowners. Detailed method statements would be developed for the specific measures of the final HMP, such as restoration methods that would encourage the abundance of bog-moss.

Work Programme

- 8.3.6 A detailed work programme would be developed in consultation with The Highland Council (THC) and landowners as part of the development of the final HMP.

Funding and Duration

- 8.3.7 The HMP and implementation would be funded in full by the Applicant and would continue for the lifetime of the Proposed Development.

8.4 Monitoring

- 8.4.1 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 HMP (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 would be subject to ongoing review of the results and agreement with statutory consultees.
- 8.4.2 Monitoring of restoration activities, e.g. ditch blocking to record progress in completion of the physical works to install, maintain and, where necessary, repair those features. This monitoring would be completed by windfarm operations staff over the course of the first five years of operation of the wind farm. Any faults or issues identified during this monitoring would be addressed as soon as possible.
- 8.4.3 The methodology for all monitoring surveys would be agreed with THC and SNH. Reports would be submitted to THC and SNH no later than six months following the survey in each monitoring year. The reports would highlight the management measures completed to date, the results of the surveys and any measures proposed for the next reporting period. The results would be regularly reviewed by the HMP management team, in consultation with landowners, to ensure the HMP objectives are being met and to determine any appropriate amendments, where practicable.

8.5 Amendments

- 8.5.1 This OHMP is a live document and would be updated following monitoring results, unexpected events or changes in guidance. Approval by THC and SNH should be sought for any amendments before revised measures are implemented.