



MacArthur
Green

Melgarve Cluster Project

Outline Habitat Management Plan

Appendix 8.4

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1 INTRODUCTION

This Outline Habitat Management Plan (OHMP) describes the proposed habitat and conservation management measures in relation to the Melgarve Cluster Project (hereafter referred to as the 'Proposed Development').

This OHMP is set out in the following sections:

- Summary of the Ecological Impact Assessment;
- Habitat Management Area (HMA);
- Biodiversity and Net Gain (BNG);
- Aims, Objectives and Management Prescriptions;
- Monitoring; and
- Reporting and HMP Review.

1.1 Target Habitats

The management recommendations within this OHMP are informed by baseline ecological surveys undertaken for the Proposed Development and the findings of **Chapter 8: Ecology** of the Melgarve Cluster Environmental Impact Assessment Report (EIA Report). The main habitat considered in this OHMP is blanket bog.

The measures detailed within this OHMP aim to achieve significant biodiversity enhancement at the site, in line with objectives outlined in National Planning Framework 4 (NPF4) Policy 3¹.

1.2 Finalisation of the HMP and Reporting

This OHMP is based on potential 'Search Areas' identified during desk-based reviews, ecological surveys and prior knowledge of the Proposed Development and neighbouring land on affected estates. Discussions have been opened with affected landowners to agree land parcels for the HMP (and for BNG compensation arising from this project). This is hoped to provide a 'near' site opportunity to improve existing blanket bog in hagged, eroding and degraded condition. Although discussions remain at an early stage, this will be progressed further through the course of the Section 37 application. Any HMP and/or BNG compensation area agreed is intended to be delivered via a legal agreement with the landowner(s) - the details of which would be discussed with the NatureScot and The Highland Council (THC) when further progressed to ensure it meets the application requirements. This will require the terms of any agreement to be 30 years.

The blanket bog Search Areas will be refined following further specialist surveys, further negotiations with landowners and feedback from relevant consultees. Other search areas and/or

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

habitat management proposals may also be considered; however, the Applicant remains committed to delivering significant biodiversity enhancement at the Proposed Development.

This OHMP will be refined and developed into a final HMP during the application period and post-consent. The final HMP will confirm the overarching HMA encompassing all habitat management proposals, and any finalised management units therein, where the aims, objectives and management prescriptions will apply. The final HMP will be agreed with THC in consultation with NatureScot prior to the commencement of construction of the Proposed Development.

An annual report (in Years 1, 3 and 5) will be submitted by the Applicant to THC and NatureScot detailing the tasks (management and monitoring) completed over the last year(s) and those planned for the year(s) ahead.

Management prescriptions in the HMP may be amended considering monitoring results to ensure progress towards the stated aims and objectives of the plan.

2 SUMMARY OF ECOLOGICAL IMPACT ASSESSMENT

The Proposed Development is set within upland habitats. The most common and prevalent habitat types within the site is degraded and actively eroding blanket bog, with some pockets of wet dwarf shrub heath, bare peat, unimproved acid grassland, lichen/bryophyte heath, montane heath/dwarf herb heath, acid dry dwarf shrub heath, flushes and springs (see **Appendix 8.1** and **Figure 8.3** of the EIA Report).

As per **Chapter 8: Ecology**, important ecological features (IEFs) scoped-in to the ecological impact assessment comprise blanket bog and wet dwarf shrub heath; no significant effects are predicted.

The Proposed Development could potentially directly impact up to 20.32ha of degraded blanket bog (direct permanent loss 0.98ha and direct temporary loss 19.34ha), and potentially indirectly affect 5.86ha. The Proposed Development could potentially directly impact up to 6.91ha of wet heath (direct permanent loss 0.20ha and direct temporary loss 6.71ha), and potentially indirectly affect 2.66ha.

This OHMP proposes a HMP area in the order of 50 ha – 85 ha in size, depending on the condition and characteristics of the peatland within the Search Areas.

3 HABITAT MANAGEMENT AREA

This OHMP proposes a HMA covering an appropriate Search Area(s), focussing on peatland restoration and enhancement, within which management and monitoring works would be implemented. The HMA will be comprised of predominantly blanket bog, with some areas of wet dwarf shrub likely present in peatland habitat mosaics. Within the HMA the aim will be to restore and enhance the existing and degraded peatland habitat. This aim would likely be fulfilled through various peatland restoration techniques (see Section 5).

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 local flora and fauna.

The overall goal of the HMP is to restore, enhance and create habitats of ecological value in the HMA, which in turn will benefit existing flora and fauna.

The precise objectives and management prescriptions for the finalised management units within the HMA will depend on the current state of the habitat and the factors acting upon it. In order to inform the objectives and detail appropriate management prescriptions, further specific surveys may be required to be undertaken in developing the final HMP. These surveys may include, but are not limited to, the following:

- Relevant peatland condition assessments in line with Peatland Action guidance² and/or NatureScot guidance³;
- JNCC Common Standards Monitoring of Upland Habitats⁴ or habitat condition assessments utilising the latest Biodiversity Metric⁵ condition assessment pro-forma and methodology;
- Ecology and hydrology walkover to identify opportunities for drain/gully blocking/reprofiling, bunding, and restoration of the peatland water table; and
- Herbivore Impact Assessment (HIA).

4 BIODIVERSITY NET GAIN

BNG is a process which follows the principal of biodiversity enhancement and leaves nature in a better state than before development work started. SSEN Transmission has developed a BNG Toolkit based upon the Natural England Biodiversity Metric^{6,7} (in the absence of an agreed Scottish metric). The SSEN Transmission Toolkit has been used to quantify biodiversity value at the site and impacts from the Proposed Development. 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 scope of the BNG assessment is to quantify the overall potential biodiversity impacts for the Proposed Development; this includes a biodiversity baseline assessment, quantification of habitat losses due to temporary works and permanent structures, and analysis of biodiversity gains

²NatureScot (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>

³<https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management>

⁴ <https://jncc.gov.uk/our-work/common-standards-monitoring>

⁵ <https://publications.naturalengland.org.uk/publication/6049804846366720>

⁶ Natural England (2019) The Biodiversity Metric 2.0: auditing and accounting for biodiversity value. User Guide (Beta Version, July 2019). <http://publications.naturalengland.org.uk/file/5366205450027008>

⁷ Further versions of the Natural England Biodiversity Metric have since been published. SSEN Transmission are in the process of incorporating this into their guidance and toolkit.

following reinstatement of habitats in areas of temporary construction work and additional habitat enhancement and creation (whether onsite and/or offsite).

The BNG assessment is based upon National Vegetation Classification (NVC) surveys, converted to Phase 1 habitat types, undertaken for the EIA Report (**Appendix 8.1** and **Figure 8.3**). The results of the BNG assessment will aid in the development of the final HMP during the application determination process and help inform the area of land required to fulfil BNG compensation and enhancement requirements, ultimately ensuring a 10% net gain for biodiversity in line with the Applicants biodiversity ambition and environmental legacy commitments⁸, Sustainability Strategy⁹ and Sustainability Plan¹⁰.

5 AIMS, OBJECTIVES AND MANAGEMENT PRESCRIPTIONS

The aims define the general HMP goals, and the related objectives further define the aims into quantifiable targets. The prescriptions detail the indicative management works to be implemented to achieve these aims and objectives.

As discussed in Section 1.2, the proposed areas for habitat management and the development of the HMA are being determined through ongoing discussions with relevant landowners. Detailed appropriate objectives and prescriptions will be developed when Search Areas have been agreed and subject to further survey, with these survey results refining the HMA in consultation with statutory consultees where necessary. However, the experience gained from providing and delivering plans for similar sites and habitats would suggest that as an outline, the aims, objectives and prescriptions would likely include or be similar to the below.

5.1 Aim 1: Restore and enhance peatland habitat and improve bog habitat condition

- Objective 1.1 Halt ongoing peatland erosion and drainage via hags/gullies/micro-erosion/peat pans etc.
- Objective 1.2 Bare peat revegetation, with less than 2% bare peat visible at Year 10.
- Objective 1.3 Increase the abundance and distribution of major peat forming species, particularly Sphagna (particularly key blanket mire indicator species such as *Sphagnum papillosum* and *S. medium*).
- Objective 1.4 Increase the abundance and structural diversity of dwarf shrubs such as *Calluna vulgaris*, *Erica tetralix* and *Vaccinium* spp. in line with local reference blanket bog.
- Objective 1.5 Achieve Moderate Condition blanket bog within 20 years and Good condition blanket bog within 30¹¹ years.

⁸ SSEN Transmission (2023). Delivering a positive environmental legacy. <https://www.ssen-transmission.co.uk/globalassets/documents/sustainability-and-environment/environmental-legacy-booklet>

⁹ Delivering a smart, sustainable energy future: The Scottish Hydro Electric Transmission Sustainability Strategy (2018) <https://www.ssen-transmission.co.uk/media/2701/sustainability-strategy.pdf>

¹⁰ Our Sustainability Plan: Turning Ambition into Action. (2019) SHE Transmission. <https://www.ssen-transmission.co.uk/media/3215/our-sustainability-plan-consultation-report.pdf>

¹¹ For existing and baseline blanket bog in Poor Condition.

- Prescription 1.1 Manage deer numbers, via fencing (if practicable/feasible) and/or increased culling within HMA in agreement with the landowners, to achieve Objectives 1.1 – 1.5.
- Prescription 1.2 Dam active drains¹² (even if vegetated) in order that the water level is raised sufficiently to create conditions suitable for a range of blanket bog species, including the species mentioned within Objective 1.3. This should be carried out under the supervision of a suitably qualified Ecological Clerk of Works (ECoW) and follow relevant guidance^{12,13,14}.
- Prescription 1.3 Undertake peat hagg, gully and bank restoration and peat surface re-profiling/stabilisation with a low-pressure excavator and in line with relevant guidance^{12, 14}.
- Prescription 1.4 Utilise surface bunding¹² (e.g., cell bunding/gully bunds) to impede and/or disrupt surface flow over bare peat (e.g., wide, shallow gully, or large bare peat pans).
- Prescription 1.5 Revegetate bare peat areas using site-specific appropriate techniques, which may include, but not be limited to; mulching, textile application, turfing or transplanting propagules¹².
- Prescription 1.6 If appropriate use stone dams when gully erosion (in gullies less than 2m wide) is down to the mineral layer (i.e., where there is no alternative), or where peat is less than 50cm deep.
- Prescription 1.7 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

¹² According to methodology detailed in: Peatland Action (2022) Technical Compendium. Available at: <https://www.nature.scot/doc/peatland-action-technical-compendium>

¹³ NatureScot (2019). Peatland Action - Guidance for land managers - installing peat and plastic dams (<https://www.nature.scot/doc/peatland-action-guidance-land-managers-installing-peat-and-plastic-dams>)

¹⁴ Thom, T., Hanlon, A., Lindsay, R., Richards, J., Stoneman, R. & Brooks, S. (2019). Conserving Bogs: The Management Handbook. (2nd Edition). (<https://www.iucn-uk-peatlandprogramme.org/resources/restoration-practice/conservation-handbook>)

- storage of materials or machinery.

6 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 HMP.

The Sections below outline the likely monitoring required for the proposals detailed above, however the detailed monitoring proposals will be provided in the final HMP to be submitted post-consent and pre-construction when the HMA and any associated Management Units and associated proposed enhancement measures have been finalised.

6.1 Aim 1: Restore/enhance peatland habitat and improve bog habitat condition

The following monitoring would be undertaken to evaluate the success of this aim:

- Habitat/vegetation monitoring would evaluate the success of restoration, revegetation and enhancement of peatland. This would be achieved by recording changes to the structure and composition of the vegetation and species abundance, evenness and diversity. Recording of impacts from deer/livestock would also be included in the monitoring programme.

A representative sample of permanent quadrats and fixed-point photography locations would be established within the 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 proposed monitoring year to gather comparable data. Photographs would also be taken of each sample quadrat, as well as overview fixed-point photographs of the HMA.

In addition, a proportionate number of quadrat monitoring locations would also be set up outwith the HMA and in nearby and similar habitat. This would allow a temporal comparison of the success of restored habitats in the HMA compared to those outwith the HMA and subject to natural changes only.

- A blanket bog condition assessment at regular intervals throughout the lifetime of the HMP utilising i) the latest Biodiversity Metric⁵ condition assessment pro-forma and methodology, and/or ii) a CSM⁴ blanket bog site condition survey, at representative locations within the HMA.
- Any peat hagg/gully/bank or surface reprofiling/bunding works, and any installed peat/stone dams, would be monitored to ensure works are successful over the first three years after works are completed. Remedial measures would be undertaken if restoration works have failed.

7 REPORTING & HMP REVIEW

A report would be submitted by the Applicant to NatureScot and THC in Years 1, 3 and 5 of operation, the frequency of reporting after Year 5 would be agreed between all parties. This report will detail:

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

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