CONTENTS

TABLES

Introduction

5.1 **Chapter 5: Ecology** of the Environmental Impact Assessment (EIA) Report which accompanied the application considered the potential ecological effects that could arise from the Proposed Development.

5.2 This Supplementary Environmental Information (SEI) Chapter supplements **EIA Chapter 5** and considers any change to ecological effects that would be caused by the revised layout of the Proposed Development, in comparison to the effects previously presented in **EIA Chapter 5**. The methodology employed in this SEI chapter is as set out in **EIA Chapter 5**.

5.3 The following key documents should be read in conjunction with this SEI chapter:

- **SEI Report Volume 4 – SEI Technical Appendix (TA) 5.3: Outline Habitat Management Plan Update (OHMP)**;
- **EIA Report Volume 2** – **Chapter 5: Ecology;**
- **EIA Report Volume 2** – **Chapter 5: Technical Appendices (TAs) 5.1 – 5.4;**
- **SEI Report Volume 3a** – **Chapter 5: Figure 5.4**: Peatland Condition; and
- **SEI Report Volume 4** – **SEI TA5.3: Figure 5.3.1**: Habitat Management Areas.

Consultee Responses to EIA Report

5.4 **Table 5-1** provides a summary of the ecology related responses in relation to the application layout of the Proposed Development (**EIA Chapter 5**), received from key consultees. A response to the consultee comments is also provided.

Table 5-1: Consultee Responses

Consultee	Summary of Key Issues	Responses to Comments
The Highland Council (THC) 15 November 2024	THC recommended feathering of turbine blades, to minimise collision risks between turbine blades and bats / birds.	Turbine blades will be feathered to minimise collision risk (see **paragraph 5.27**). T1 has been removed from the application primarily to reduce potential collision effects for eagles (as discussed and assessed in **Chapter 4**).
	THC stated that the current design does not minimise loss of peatland habitat, and that the proposed restoration fell short of NatureScot guidance.	The habitat management areas have been increased from 64.73ha to 128.6ha, as detailed in **paragraph 5.30**. Full details of proposed peatland restoration can be found in **SEI TA5.3: OHMP Update.**
	THC stated that the calculation of habitat loss did not meet with the Peatland Code guidelines, utilising a 10m buffer rather than a 30m buffer and requested a robust justification for the applied buffer.	The calculation of habitat losses has been based on a 10m buffer for peatland habitats rather than 30m, due to the presence of erosion features on site that are present within 10m of the infrastructure. These erosion features mean that potential drying effects are not likely to extend beyond 10m. A buffer of 10m has been used for floating

Consultee	Summary of Key Issues	Responses to Comments
		tracks within peatland (rather than 5m) on a precautionary basis as per **paragraph 5.17**.
	THC noted that the ecological baseline for the proposed habitat management areas has not been provided and requested that protected species/protected bird surveys of these areas should be undertaken.	See **paragraphs 5.5 to 5.9**. **Section 4.1** of **SEI TA5.3: OHMP Update** contains details of surveys to take place prior to restoration works, including protected species and protected bird surveys.
	THC stated that the application did not comply with the requirements of NPF4 Policy 3 and NatureScot guidance, and that enhancement was not provided within the proposed enhancement areas. They requested that additional areas for restoration should be identified.	The proposed habitat management areas have been increased from 64.73ha to 128.6ha as per **paragraph 5.30**, which includes 10 times peatland lost plus 10% enhancement. Further details are presented in **SEI TA5.3: OHMP Update**.
NatureScot **11 October 2024**	NatureScot stated that the proposed peatland restoration to compensate for predicted habitat loss falls short of their guidance and recommended additional areas are added.	The proposed habitat management areas have been increased from 64.73ha to 128.6ha as per **paragraph 5.30**. Further details are presented in **SEI TA5.3: OHMP Update**.
	NatureScot noted that areas of degraded peatland on open hill ground were referred to in the ecology report however were not mapped. They recommended that a condition assessment be carried out and details of restoration methods considered in these areas.	The updated habitat management areas are shown on **SEI Figure 5.3.1** and now include degraded peatland on open hill ground. A condition assessment was carried out, the results of which are shown on **SEI Figure 5.4.** See **SEI TA5.3: OHMP Update** for full details of restoration areas.
	NatureScot stated that restoration methods within the OHMP should follow best practice guidance detailed in the Peatland action technical compendium.	**SEI TA5.3: OHMP Update** contains details of recommended peatland restoration methods, with reference to the Peatland ACTION technical compendium.
	NatureScot stated that areas for enhancement were not identified and recommended enhancement in the region of 10% of the baseline assessment of peatland extent within the application boundary.	The habitat management areas have been increased from 64.73ha to 128.6ha as per **paragraph 5.30**, which includes 10 times peatland lost plus 10% enhancement. Further details are presented in **SEI TA5.3: OHMP Update**.
	NatureScot recommend ‘feathering’ of turbine blades to reduce collision risk to bats.	Turbine blades will be feathered to minimise collision risk (see **paragraph 5.27**).
SEPA **18 June 2024**	SEPA requested a figure showing peatland classification found on site based on NatureScot (2023) guidance to show how the layout avoids areas of near natural habitat.	Peatland condition of habitat management areas in relation to infrastructure is shown on **SEI Figure 5.4**.
SEPA **23 December 2024**	SEPA noted that the development will not impact on any near natural habitat and withdraw their objection.	Noted.

Consultee	Summary of Key Issues	Responses to Comments
[Response to letter from SLR dated 12 December 2024 providing peatland condition figures]		
RSPB **21 June 2024**	The RSPB stated that the amount of restoration proposed within the OHMP is not in alignment with NatureScot guidance and additional restoration areas should be identified to provide ten times restoration, plus an additional 10% enhancement.	The habitat management areas have been increased from 64.73ha to 128.6ha as per **paragraph 5.30**, which includes 10 times peatland lost plus 10% enhancement. Further details are presented in **SEI TA5.3: OHMP Update**.
	The RSPB requests that the deeply eroded haggs near to the plateau between Ben Aketil and Ben Sca are reconsidered for restoration.	**SEI Figure 5.3.1** identifies additional areas for restoration, habitat management areas now include habitat present near to the plateau between Ben Aketil and Ben Sca.
	The RSPB stated that there is potential outwith the red line boundary to do further forest to bog restoration.	**SEI Figure 5.3.1** identifies additional areas selected for restoration, this includes areas outwith the red line boundary of the Proposed Development.
	The RSPB noted that the OHMP states there is presence of significant amounts of erosion gullies or hagging within the open peatland in the south of the site and recommend these areas are considered for inclusion within the restoration plan.	Areas of degraded open peatland have been included within the updated habitat management areas. **See SEI TA5.3: OHMP Update** for full details.
	The RSPB noted that forest to bog restoration areas will be surrounded by commercial forestry and raised concerns regarding drying impacts and potential regeneration from forests. They recommended long term restoration management.	**Sections 4.5** and **4.6** of **SEI TA5.3: OHMP Update** details recommended ongoing management and monitoring of habitat management areas, including water table monitoring and conifer regeneration control.
	The RSPB noted that the HMP should include a commitment to monitor the impact of deer grazing on the proposed restoration sites.	**Sections 4.5** and **4.6** of **SEI TA5.3: OHMP Update** details recommended ongoing management and monitoring of habitat management areas, including grazing monitoring and control.

Additional Consultation

5.5 Prior to the submission of the Ben Sca Redesign EIA Report, consultation with THC and NatureScot was undertaken to discuss the requirement for habitat and protected species surveys in the habitat management areas, in relation to the consultee responses to the Balmeanach Wind Farm EIA Report.

5.6 All habitat management areas have been surveyed by the forestry contractor and visited by a habitat surveyor and their suitability for restoration was assessed. Areas where updated full habitat surveys have not been undertaken will be surveyed prior to works taking place.

5.7 In an email to Mark Fitzpatrick of THC (Scott, 2024a) it was confirmed that any further ecology surveys were unlikely to yield results that would influence the outcomes of the impact assessment, and on that basis, as pre-construction surveys would be undertaken prior to any habitat management works, no additional surveys would be undertaken prior to determination. An email response from THC (Fitzpatrick, 2024) stated that the THC ecologist was in general agreement with this approach.

5.8 Following this, an email was sent to NatureScot (Scott, 2024b) providing an update of approach as agreed with THC. NatureScot responded in an email (Reid, 2024) acknowledging receipt and stating they did not plan to comment further on this point.

5.9 Based on the communications detailed in paragraph 5.6, no further surveys were undertaken within the Ben Sca Redesign habitat management areas based on the same principles.

Design Amendments

5.10 The design amendments from the Proposed Development application layout (as detailed in the EIA Report) relevant to the ecological assessment are detailed in **SEI Chapter 1**, and include:

- removal of Turbine 1 (T1) and associated foundation and crane hardstanding to reduce predicted collision risk for white-tailed eagles; and
- update to the Outline HMP Update (**SEI TA5.3**).

Revised Figures

5.11 In order to update the graphic information previously issued with the EIA Report, a series of revised figures have been produced for the SEI, as follows, which supersede the corresponding EIA Figures:

- Figures which support **SEI Chapter 5** (superseding **EIA Figures 5.1**, **5.2** and **5.3**).
  - **SEI Figure 5.1**: Ecological Designations;
  - **SEI Figure 5.2a-d:** Phase 1 Habitat Data (2018);
  - **SEI Figure 5.3a-d**: NVC Data (2018); and
  - **SEI Figure 5.4**: Peatland Condition.
- Figures which support **SEI TA5.3: OHMP Update** (superseding **EIA Figure 5.3.1**):
  - **SEI Figure 5.3.1**: Habitat Management Areas.

Baseline Conditions

5.12 As there has been no change to the application boundary, there is no change to the baseline habitat conditions presented in **EIA Chapter 5** as a result of the design amendments detailed in **SEI Chapter 1**. The habitat data presented in **EIA Chapter 5** is considered still valid, as survey data was collected in 2023 (see Chartered Institute of

Ecologists and Environmental Managers guidance on data validity (CIEEM, 2023) and is unlikely to have changed significantly since this time. **SEI Figure 5.2a-d** and **SEI Figure 5.3a-d** show UKHab habitat survey results and National Vegetation Classification (NVC) survey results respectively, in relation to the revised layout.

5.13 The baseline conditions for faunal species presented within **EIA Chapter 5** are considered to still be representative of baseline conditions on site, given that there have been no significant changes to the habitats present and therefore the faunal species they support, in line with the Chartered Institute of Ecologists and Environmental Managers guidance (CIEEM, 2019). Pre-construction surveys, as detailed in paragraph 5.97 of **EIA Chapter 5** would be conducted to account for any changes and would inform any additional mitigation required.

Assessment of Design Amendment Effects

5.14 The methodology of the ecological impact assessment is described in full in **EIA Chapter 5** and has been replicated to fully assess the ecological impacts of the design amendments.

Assessment of Construction Phase Effects

Habitats

5.15 **EIA Report Chapter 1** includes the proposed dimensions of all permanent and temporary features of the Proposed Development. Permanent features of the Proposed Development consist of turbines, crane pads, construction compound (Compound 1) access tracks and a substation compound. Temporary features consist of the construction compound (Compound 2) and borrow pits. These have been applied to the revised Proposed Development layout detailed in **SEI Chapter 1**.

5.16 Potential impacts are categorised as follows:

- Direct habitat loss: this includes habitats present under the footprint of the Proposed Development, including access tracks, construction compound (Compound 1), turbine areas, crane pads, the substation compound and borrow pits.
- Indirect habitat loss: indirect habitat loss has been calculated for peatland habitats which lie within 10m of the direct habitat loss areas; the allowance of 10m is to allow for drying effects and vegetation changes due to construction works. For other habitats, an allowance of a temporary loss of 5m is included to allow for possible temporary loss due to damage during construction. Floating tracks are considered conservatively in the same manner as other tracks, with a 10m buffer in blanket bog, though in reality, the drying effect should be reduced.

5.17 For the purposes of the assessment a precautionary approach has been taken which assumes that direct habitat loss and indirect habitat loss of peatland habitats represents a permanent, irreversible negative effect, although in practice some areas indirectly affected may be able to be utilised as part of the restoration plans.

5.18 **Table 5-2** details the estimated direct and indirect/temporary habitat loss for habitats for the revised layout. This information supersedes that contained within **Table 5-7** of **EIA Chapter 5**.

Table 5-2: Summary of Habitat loss by UKHab/NVC Community Type

UK Hab Type	NVC Community	Direct Habitat Loss (ha)	Infrastructure causing Direct Habitat Loss	Indirect or Temporary Habitat Loss (ha)	Infrastructure causing Indirect/Temporary Habitat Loss (ha)	Total Loss (ha)
Blanket Bog (f1a5) – Annex 1 (H7130)	M17	3.74	Borrow pit, Permanent crane hardstanding, Substation, Access track, Turning head	7.47	Borrow pit, Temporary construction compound 2, Permanent crane hardstanding, Temporary crane hardstanding, Substation, Excavated track, Floated track, Turning head	11.21
	M2	0.16	Permanent crane hardstanding, Access track	0.32	Permanent crane hardstanding, Temporary crane hardstanding, Excavated track	0.48
Dry Heath (h1b5) – Annex 1 (H4030)	H12	0.24	Borrow pit, permanent crane hardstanding, Access track	0.09	Borrow pit, Excavated track	0.33
Dry Heath/Acid Grassland (h1b5) – Annex 1 (H4030)	U5/U6/H14	0.32	Substation, Access track, Turning head	0.32	Substation, Excavated track, Turning head	0.64
Dry Heath/ Wet Heath (h1b5) – Annex 1 (H4030) (h1b6) – Annex 1 (H4010)*	M15/H14	0.28	Permanent crane hardstanding, Access track	0.34	Permanent crane hardstanding, Temporary crane hardstanding, Excavated track	0.62
Wet Heath(h1b6) – Annex 1 (H4010)*	M15	0.23	Access track	0.41	Permanent crane hardstanding, excavated track, turning head	0.64

UK Hab Type	NVC Community	Direct Habitat Loss (ha)	Infrastructure causing Direct Habitat Loss	Indirect or Temporary Habitat Loss (ha)	Infrastructure causing Indirect/Temporary Habitat Loss (ha)	Total Loss (ha)
Acid Grassland (g1b)	U4/U5	0.01	Access track	0.02	Excavated track	0.03
Rushy Grassland	M23b	0.01	Access track	0.07	Temporary crane hardstanding, Excavated track	0.08
Conifer Plantation	-	1.38	Borrow pit, permanent crane hardstanding, Access track, Permanent construction compound 1	1.41	Borrow pit, Construction compound, Permanent crane hardstanding, Temporary crane hardstanding, Excavated track, Floated track, Permanent construction compound 1	2.79
Total		**6.37**		**10.45**		**16.82**
Communities marked with a '*' are potential GWDTE communities.						

5.19 The revised layout of the Proposed Development would result in the potential maximum loss of habitat as follows:

- Direct loss of 3.9ha and the indirect loss of 7.79ha of Annex 1 blanket bog communities (a total loss of 11.69ha).
- For wet and dry heath communities (including as part of an acid grassland mosaic); the direct permanent loss would be 1.07ha, and the indirect or temporary loss would be 1.16ha (a total loss of 2.23ha).

5.20 The direct and indirect loss of up to 11.69ha of regionally important Annex 1 blanket bog habitat is considered to constitute a significant negative effect at a regional level (as was the case for the application layout).

5.21 The total loss of up to 2.23ha of locally important Annex 1 wet and dry heath habitat is considered to constitute a significant negative effect at a local level (as was the case for the application layout).

5.22 The small-scale loss of acid grassland and rushy grassland is considered to be not significant, given the scale and ubiquitous nature of the habitats in the landscape. This is consistent with the predicted effects of the application layout.

5.23 The mitigation and habitat restoration measures proposed to offset significant negative effects described in **paragraphs 5.19 to 5.22** are summarised in **paragraphs 5.29 to 5.32** (full details can be found in **EIA Chapter 5** and **SEI TA5.3: OHMP Update**).

Fauna

5.24 Effects during the construction phase on protected fauna (considered to be reptiles, otter *Lutra lutra* and deer) would not change as a result of the amendments to the design. No significant effects are considered likely to these species as a result of either direct or indirect impacts due to the revised layout of the Proposed Development.

Assessment of Operational Phase Effects

Habitats

5.25 Effects during the operational phase on habitats would not change as a result of the amendments to the design. No significant effects are predicted (as was the case for the application layout).

Fauna

5.26 Effects during the operational phase on protected fauna (as listed in **paragraph 5.24**) would not change as a result of the amendments to the design. No significant effects are predicted (as was the case for the application layout).

5.27 Although bats were scoped out of assessment within **EIA Chapter 5**, turbine blades will be feathered to further reduce any potential collision risk to any bats present.

Amendments to Outline Habitat Management Plan

5.28 **SEI TA5.3: OHMP Update** sets out the updated goals and objectives of the OHMP, details recommended restoration methods and includes recommendations for monitoring.

5.29 The proposed peatland restoration area was updated with the aim to meet current NatureScot guidance (NatureScot, 2023) which recommends a peatland restoration area of 10 times the area lost (116.9ha), plus and enhancement area of 10% total peatland recorded on site (11ha). The total requirement for peatland restoration and enhancement for the Proposed Development is therefore 127.9.ha.

5.30 The proposed habitat management areas (as shown on **SEI Figure 5.3.1**) totals 128.6ha, which provides a restoration of 10 times that lost plus 11.7ha (11%) enhancement.

5.31 Additionally, 22.74ha heath restoration is proposed to offset the potential maximum loss of 2.23ha Annex 1 wet and dry heath communities.

5.32 **Section 3** of **SEI TA5.3: OHMP Update** details the update goals and objectives to meet the restoration aims detailed in **paragraphs 5.29** and **5.30**. The updated goals are as follows:

- to create a 57.33ha area of blanket bog via forest-to-bog peatland restoration;
- to restore a 71.27ha area of blanket bog via gully blocking and micro-erosion stabilisation;
- to enhance 22.74ha of wet heath;
- within 30 years to have created hydrological conditions suitable for the development and maintenance of carbon sequestering bog/wet heath habitats that are largely self-sustaining, therefore making a significant contribution to the restoration of this habitat type at the local level;

- to provide enhanced foraging areas for golden eagles and white-tailed eagles; and
- to discourage golden eagles and white-tailed eagles from utilising the turbine area.

5.33 **Section 3.3** of **SEI TA5.3: OHMP Update** contains details of the rationale behind the identification of proposed habitat management areas (**SEI Figure 5.3.1**) and the current issues or damage within these areas.

Cumulative Development Update

Cumulative Baseline

5.34 As outlined in **SEI Chapter 1**, since the submission of the application for the Proposed Development, there have been some changes to the context of other wind farm developments in proximity to the site. **Table 1-4** in **SEI Chapter 1** summarises the updated cumulative dataset.

5.35 For the purposes of the assessment of potential cumulative effects, the following receptors have been assessed, as they were in **EIA Chapter 5**:

- cumulative effects on aquatic receptors (including otters) within the same sub-catchment and within 2km;
- cumulative effects on habitats for other developments within the application boundary, or same hydrological catchment; and
- cumulative effects on non-avian terrestrial receptors located within the regular range of more mobile species, e.g. bats. As bats were scoped out of the assessment in EIA Chapter 5, the cumulative assessment has therefore been restricted to other developments within 2km.

5.36 **Table 5-6** in **EIA Chapter 5** details the projects considered in the original cumulative impact assessment undertaken for the application. The additional projects considered within this impact assessment, including all developments within the relevant study areas which are either operational, under construction, consented or for which a planning application has been submitted) are:

- Balmeanach Wind Farm (revised layout);
- Glen Ullinish II Wind Farm (redesign) (would replace consented Glen Ullinish II Wind Farm); and
- Beinn Mheadhonach Redesign (would replace consented Beinn Mheadhnach Wind Farm).

5.37 The following proposed wind farms were not included in the assessment within this chapter as no planning application has been submitted, and therefore there is insufficient information available in order to assess cumulative effects:

- Edinbane Repowering and Extension; and
- Edinbane – Land at 4 Edinbane.

Cumulative Effects

5.38 **SEI Volume 5 Section 4** provides full details of the combined effects on terrestrial (non-avian) ecological receptors associated with the construction and operation of the Proposed Development alongside Balmeanach Wind Farm.

5.39 In summary, no significant negative combined effects are predicted, over and above the significant effects for each scheme when considered alone. A significant positive combined effect on habitats is predicted due to the connectivity of the proposed restoration areas for both developments.

Construction Phase

5.40 Cumulative effects during construction have been assessed under the assumption that all projects would be constructed concurrently.

5.41 The cumulative assessment within **EIA Chapter 5** concluded that significant cumulative effects on aquatic receptors (including otters) were not likely. The northern sections of Balmeanach Wind Farm are located within the same catchment as the Proposed Development and therefore the cumulative assessment stated there was some potential for cumulative effects, however it was assumed that Balmeanach Wind Farm would be constructed in line with standard guidance and good practice pollution prevention measures and therefore significant cumulative effects were deemed not likely. The same is assumed for the updated layout Balmeanach Wind Farm.

5.42 Glen Ullinish II Redesign would be situated at the same location as the consented Glen Ullinish II, which was considered in the original cumulative impact assessment in **EIA Chapter 5** and does not sit within the same hydrological catchment as the revised layout of the Proposed Development, and therefore there is no potential for cumulative effects on aquatic receptors, including otter. This is also the case for Beinn Mheadhonach Redesign.

5.43 Cumulative effects on habitats during construction were only considered for projects not already constructed, and in close proximity to the Proposed Development. Therefore, only consented or proposed schemes were considered. Given both the updated Balmeanach Wind Farm and Glen Ullinish II Redesign developments have reduced the number of turbines, therefore leading to less habitat loss, the assessment of cumulative effects within **EIA Chapter 5** which concluded no significant cumulative effects is considered unchanged.

Operation Phase

5.44 The cumulative assessment within **EIA Chapter 5** concluded there would be no significant cumulative effects on retained habitats, reptiles, deer and otter during the operational phase. This was based on the assumption that minimal traffic would be present during the operational phase and human activity would be limited to permanent infrastructure areas, which would limit the potential for fatality due to vehicle strikes and disturbance due to vehicles/ staff on site. Additionally, standard pollution prevention control measures would be in place, reducing the potential for significant pollution events. The same is assumed for Balmeanach Wind Farm (revised layout), Glen Ullinish II Wind Farm (redesign), and Beinn Mheadhonach Redesign; therefore, the assessment of cumulative effects is considered unchanged.

Summary of Changes to the Significance of Effects

5.45 As a result of the changes to the Proposed Development there would be no changes to the significance of effects as assessed and presented in **EIA Chapter 5**.

Conclusions

5.46 This chapter has reviewed the responses from consultees, providing additional information as requested where necessary, and clarifying a number of concerns.

5.47 It has also reviewed the changes to the layout of the Proposed Development and described how these would have no change on the assessment of the significance of the effects of the Proposed Development on ecological receptors.

5.48 The area of proposed peatland restoration has increased from 64.73ha to 128.6ha, which has increased the peatland restoration ratio to 1:10 (from the previous ratio of under 1:5), and provides over 10% enhancement in line with NatureScot guidance.

5.49 Further enhancement is provided by 22.74ha of proposed wet heath restoration. Additionally, 57.33ha of restoration proposed is forest-to-bog, which represents a significant benefit given the relatively low value of the habitat in its current state (conifer plantation).

5.50 It should also be noted that the proposed peatland restoration areas would be additional to those proposed for Balmeanach Wind Farm, and are situated next to each other, which would provide further enhancement benefits due to the connectivity of habitat. The combined peatland restoration areas (for Balmeanach and Ben Sca Redesign together) deliver 1:10 peatland restoration along with between 13% and 18% enhancement. See **SEI Volume 5 Section 4** and **SEI Volume 5 Appendix A** for full details.

References

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