SEI: DESCRIPTION OF DEVELOPMENT 3

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Introduction

- 3.1 **Chapter 3: Description of Development**, of the Environmental Impact Assessment (EIA) Report sets out the components of the Proposed Development for which planning permission is being sought and which have been assessed in the EIA Report.
- 3.2 This Supplementary Environmental Information (SEI) Chapter provides further information in relation to the proposed amendments to the Proposed Development in response to consultee comments and requests. The description of the development remains largely unchanged from the EIA Report, with only minor amendments to the layout which are detailed in this SEI Chapter. All the information contained in **Chapter 3** of the EIA Report remains valid unless stated otherwise in this SEI Chapter.
- 3.3 The application layout of the Proposed Development refers to the layout assessed in the EIA Report; and the revised layout of the Proposed Development refers to the layout assessed in this SEI Report.

Design Changes

Overview

- 3.4 As detailed in **SEI Chapter 2**, the following amendments to the site layout are proposed:
 - removal of Turbine 1 (T1), associated track to T1 and associated foundation and crane hardstanding;
 - amendments to track to reduce the length of track required, remove spurs and turning heads where possible and reorientate T4 and T5 crane hardstandings;
 - relocation of the proposed substation from the Ben Sca ridgeline to within the area of Borrow Pit 3, to provide a closer connection route to the Grid Supply Point (GSP) at the Edinbane 132KV collector substation;
 - inclusion of proposed link track to be part of the Proposed Development in the event that the consented Ben Sca Wind Farm does not get built;
 - addition of the permanent construction compound (Compound 1) to the south of the A850 to ensure that the proposed link track would be able to be built to the site (in the absence of the consented Ben Sca Wind Farm); and
 - update to the Outline Habitat Management Plan (OHMP).
- 3.5 No other changes to the site layout (turbines and associated infrastructure) are proposed.
- 3.6 SEI Figure 3.1a-b, shows the changes that have been made to the proposed infrastructure and presents the revised layout. Figure 3.1a-b of the EIA Report is now superseded by SEI Figure 3.1a-b. EIA Figure 3.2 which shows access to the site has also been updated as shown on SEI Figure 3.2 to include the two access options from the Ben Aketil Wind Farm access track, through the Ben Sca site to the Balmeanach site. All other Figures associated with Chapter 3 of the EIA Report remain unchanged and valid.
- 3.7 The following Technical Appendices associated with **Chapter 3** of the EIA Report remain valid:
 - Technical Appendix 3.1: Outline Construction Environmental Management Plan (CEMP);



- Technical Appendix 3.2: Borrow Pit Assessment; and
- Technical Appendix 3.3: Assessment of Potential Areas for Woodland Removal for Peatland Restoration.

Wind Turbine Removal

- 3.8 Due to reasons outlined in **SEI Chapter 2**, Turbine 1 (T1) and its associated track, foundation and crane hardstanding has been removed from the Proposed Development reducing the Proposed Development from up to 10 turbines to a maximum of nine turbines.
- 3.9 There are no other changes to any other turbine locations or turbine specifications (include hub height and tip height) from what was presented in the EIA Report.
- 3.10 For completeness, **Table 3-1** provides the turbine coordinates for the remaining nine turbines, although these remain unchanged from the EIA Report. Turbine identification numbers remain as previously identified in the EIA Report to avoid any confusion and turbines are therefore numbered from T2 to T10.
- 3.11 **SEI Chapters 7 to 15** consider the removal of T1, and if there are any changes to the effects as predicted in the EIA Report.

Turbine No.	Easting	Northing	AOD (m)
T2	134533	847431	187
Т3	133956	846826	243
T4	134468	846720	199
T5	133436	846328	237
Т6	133926	846404	215
T7	134321	846155	171
Т8	133367	845915	204
Т9	133779	845866	193
T10	134266	845744	158

Table 3-1: Turbine Coordinates

Amendment to Track Alignment and Infrastructure

Access Tracks

- 3.12 Due to reasons outlined in **SEI Chapter 2**, the alignment of the onsite access track has been amended to reduce the length of track required and remove spurs and turning heads where possible (**SEI Figure 2.3b**). The track has been amended in the following key locations:
 - T1: access track to the turbine has been removed along with the turning head, turbine foundation and crane hardstanding.
 - T3: the track alignment to the south of T3 has been simplified to remove the spur and minimise the length of track;
 - T4: in the application and EIA Report there were two options for the orientation of T4 crane hardstanding one of these options has been removed from the Proposed



Development and the crane hardstanding is now proposed to be aligned from south west to north east. In association with this, Option A2 for the track (shown in purple on **EIA Figure 3.1a-b**) to connect T2 and T4 has been removed in the revised layout in response to the results of the additional Phase 2 peat depth survey which showed that the A2 route would not be optimal in terms of peat depths.

- T5: the spur track to T5 has been removed along with the turning head, reorientating the hardstanding of T5 from south west to north east and realigning the track to the west.
- T8: the track between T5 and T8 has been realigned to follow shallower peat depths.
- 3.13 It is noted that the alignment of track at T6, T9 and T10 were also further explored to see if improvements could be made. The proposed infrastructure alignments at these locations satisfies the roads and hardstandings specification and complies with Health and Safety requirements to facilitate the logistics operations for the safe delivery and installation of the wind turbines. Due to the profile of the terrain and its steepness on site, no changes are proposed in these locations, maintaining the application alignment with the separate spurs. However, consideration has been given to the length of the spurs and they would be kept as short as possible. Any change to these alignments would need to be further analysed during the detailed pre-construction design and survey process to ensure that the slope would not be too steep to enable construction and access. If the track can be shortened following further onsite surveys and pre-construction design, the Applicant will endeavour to do so. The turning head proposed to the west of T9 may also be able to be removed but is subject to further onsite investigation post-consent to confirm whether possible during the detailed pre-construction design and survey process.
- 3.14 Whilst track Option A+A2 (**EIA Figure 3.1a-b**) has been removed, two alignment options (A and B) still remain. It is reiterated that only one of these options would be required. Option B is longer than A and therefore presents the worst-case effects. Option A is preferred and if this route can be secured then this would reduce the length of track required. Only one turning head adjacent to T4 would be required, with both turning head options (i.e. adjacent to track Options A and B) shown on **SEI Figure 3.1a-b**. Therefore, the overall number of turning heads would be reduced from nine to six (which equates to a reduction in 0.48ha of land take).
- 3.15 In addition to the onsite tracks, THC noted that the application for the Proposed Development should ensure that access can be achieved to the site, either via the consented Ben Sca Wind Farm track (proposed link track) or via the proposed Ben Sca Redesign Wind Farm track. The proposed link track would follow the same alignment as the Ben Sca Wind Farm consented access track, connecting the wind farm tracks proposed for the Balmeanach Wind Farm with the existing Ben Aketil Wind Farm track and A850 access junction. The proposed link track is located fully within the application boundary and in the scenario where the consented Ben Sca Wind Farm does not get built, the proposed link track would be constructed as part of the Proposed Development.
- 3.16 It is noted that the Ben Sca Redesign track route would be located outwith the application boundary for the Balmeanach Wind Farm, however, in the event that Ben Sca Redesign Wind Farm is approved, this track would be constructed under that consent and then used to access the Balmeanach Wind Farm (without any new works being undertaken on that route). If Ben Sca Redesign Wind Farm receives consent and is constructed, then the proposed link would not be required. Only one track route up to the Ben Sca hillside would exist, via the proposed link/consented Ben Sca Wind Farm track or via the proposed Ben Sca Redesign Wind Farm track.



- 3.17 The proposed link track as shown on **SEI Figure 3.1a-b** and **SEI Figure 3.2** is included in the Proposed Development layout and assessed as part of the Proposed Development, to ensure the scheme can be delivered on its own considering the scenario whereby the consented Ben Sca Wind Farm or proposed Ben Sca Redesign Wind Farm is not constructed.
- 3.18 The use of the Ben Sca Redesign track route as an alternative access route has been considered by each discipline in **Volume 5** of this SEI Report which looks at the combined effects of Balmeanach and Ben Sca Redesign Wind Farms both being constructed. The use of the Ben Sca Redesign track route is not considered further in **Volume 2 Chapters 7** to **16** of this SEI Report.
- 3.19 **Table 3-2** details the changes in terms of overall proposed track length, when comparing the application and revised track layouts.

Track Type	Application Length of Track (km) (EIA Report)	Revised Length of Track (km) (SEI Report)	Change (km)
New Track – Option A + A1	8.8	7.6	- 1.2
New Track – Option A + A2	9.0	n/a	n/a
New Track – Option B	9.4	8.4	- 1.0
Proposed Link (Consented Ben Sca Track)	n/a	1.4	+ 1.4

Table 3-2: Proposed Track Comparison

3.20 **SEI Chapters 7 to 15** consider the amendments to the tracks, turning heads and other infrastructure, and if there are any changes to the effects as predicted in the EIA Report.

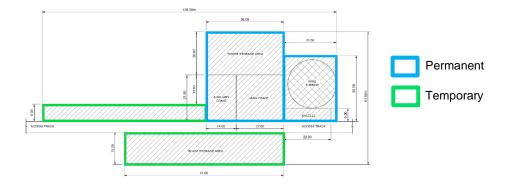
Floating Tracks

- 3.21 At this stage no floating tracks are proposed due to the gradients on site. It may be possible to float part of the track leading to the met mast.
- 3.22 The use of the floating tracks will be assessed at the pre-construction stage following surveys and detailed site investigations. The peat characterisation and depths assessed across the various peat probing surveys will be taken into consideration as well as the slope limitations to mitigate peat slide risk and reduce overall impact.

Crane Hardstandings

- 3.23 The number of crane hardstandings would be reduced from 10 to nine, resulting in a reduction of 0.4ha of land take.
- 3.24 In relation to **EIA Figure 3.6**, **Diagram 1** below confirms which areas of the proposed crane hardstandings would be permanent and temporary. These assumptions have been used in the relevant habitat loss and peat calculations in this SEI Report.
- 3.25 The temporary areas (blade laydown and storage areas) would be reinstated post construction. Where required, support areas within the blade laydown area would be arranged at suitable locations to avoid any deeper areas of peat minimising the disturbance of peat within this area.







Permanent Construction Compound

- 3.26 The permanent construction compound (Compound 1) to the south of the A850 (NGR 132370, 850730) included in the consented Ben Sca Wind Farm application and the Ben Sca Redesign Wind Farm application has also been added to this application and Proposed Development, to ensure that the construction team have an initial site base and the proposed link track would be able to be built to the site (in the absence of the consented Ben Sca Wind Farm). It would have a footprint of 100m x 50m (approx. 5,000m²) and would be likely to contain the following:
 - temporary modular building(s) to be used as a site office;
 - welfare facilities;
 - parking for construction staff and visitors;
 - reception area;
 - fuelling point or mobile fuel bowser;
 - secure storage areas for tools; and
 - waste storage facilities.
- 3.27 Therefore, in total one permanent construction compound (Compound 1) and one temporary construction compound (Compound 3, located on the Ben Sca hillside) are now proposed (**SEI Figure 3.1a-b**). It should be noted that in the event that Ben Sca Wind Farm is constructed (either consented or redesign) there would only be one permanent compound at this location. In the event that the Ben Sca Redesign Wind Farm is constructed an additional temporary compound (Compound 2) would be located at the junction with between the Ben Aketil Wind Farm access track and the Ben Sca Redesign Wind Farm access track (as shown on **SEI Figure 1.6** of the SEI Report for the Ben Sca Redesign Wind Farm (SLR, 2025) but this does not form part of the Proposed Development.

Alternative Substation Location

3.28 The proposed substation has been relocated in the search area of Borrow Pit 3 to reduce the amount of cabling required to connect to the Grid Supply Point (GSP) at Edinbane.



This would additionally benefit the Proposed Development by reducing the amount of land take required and reduce visibility of the control building. The substation would be located at NGR 134241, 845952.

Updated Outline Habitat Management Plan

- 3.29 The Outline Habitat Management Plan (OHMP) has been updated (**SEI TA8.5**) to increase the amount of restoration and enhancement for the site. The following has been considered in addition to the already proposed forest-to-bog peatland restoration areas:
 - potential additional forest-to-bog as recommended by forestry consultant survey;
 - onsite restoration of damaged peat, including a new method successfully used in the Cairngorms to stabilise micro-erosion and block gullies;
 - outline small areas of bare peat to be restored;
 - areas of ditch blocking on the land to the south west of the site within the Applicant's control; and
 - improving foraging habitat for eagles outwith the turbine area.
- 3.30 The proposed peatland restoration area has been increased from 77.75ha to 293.47ha, providing a restoration ratio in line with NatureScot's detailed peat guidance (revised November 2023) of 1:10 and 10.07ha of enhancement.
- 3.31 The 293.47ha habitat management area includes 113ha which is >500m from any turbines (including existing adjacent wind farms), providing enhanced foraging for eagles in areas away from the turbines and extends foraging areas for eagles that were previously unavailable due to the conifer plantation. The peatland restoration also includes an open corridor from Beinn Bheag up to Ben Aketil and Ben Sca, which lies in between the three proposed wind farms (Balmeanach, Ben Sca Redesign and Ben Aketil Repowering and Extension).
- 3.32 Whilst the enhancement proposals fall slightly short of 10%, the proposals for habitat management have been greatly increased to that previously proposed and are considered appropriate on this site as the areas identified need to be balanced with the continued use of the common grazings land. Additionally, 19.15ha wet heath restoration is proposed to offset the loss of Annex 1 wet and dry heath communities and provide further enhancement.
- 3.33 Further details and justification for the updated habitat management proposals are presented in **SEI TA8.5: OHMP Update**.
- 3.34 **Volume 5** of this SEI Report also includes **Appendix A** which presents a combined OHMP which would be implemented in the event that Balmeanach and Ben Sca Redesign are both consented and built. Due to shared infrastructure and only one access track needing to be built (the proposed link or Ben Sca Redesign track) the amount of habitat loss would be less than when calculated individually and the resultant combined restoration and enhancement proposals exceed NatureScot's detailed peatland guidance requirements by providing 1:10 compensation and between 13% and 18% enhancement.

Summary

3.35 The revised Proposed Development would comprise:



- nine variable pitch (three bladed) wind turbines, each with a maximum blade tip height of up to 149.9m and maximum rotor diameter of up to 138m;
- nine turbine foundations (approximately 25m diameter) and nine crane hardstanding areas to aid the installation process and provide storage for blades, towers and nacelle components (approximately 3,350m²) at each wind turbine location;
- one lattice met mast up to 83.5m height, including a foundation and a hardstanding area;
- up to 8.4km of new onsite access track and associated drainage with a typical 5m running width (wider on bends) and six turning heads;
- approximately 1.4km of proposed track linking the existing Ben Aketil Wind Farm track with the site (note this would only be required if Ben Sca Wind Farm is not built);
- underground cabling and electrical infrastructure along access tracks to connect the turbine locations, and the onsite electrical substation;
- one onsite substation (in the location of Borrow Pit 3) which would accommodate 33KV Switchgear to collect electricity from different parts of the site. The substation compound would have a typical area of 35m x 30m and would include a control and metering building;
- search area for up to four borrow pits (covering approximately 48,900m²);
- one permanent construction compound (Compound 1 100m x 50m) and one temporary construction compound (Compound 3 - 100m x 80m);
- upgrade to site entrance from the A850; and
- clearance of 64.73ha of conifer forest for habitat management purposes (SEI TA8.5: OHMP Update).
- 3.36 It is proposed that the total installed capacity would be up to 45MW which is consistent with the confirmed grid connection capacity for the site.

References

NatureScot (2023). Advising on peatland, carbon-rich soils and priority peatland habitats in development management, Published: June 2023, Revised November 2023.

Scottish Government (2023) National Planning Framework 4, Published: February 2023, Updated October 2024.

