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Introduction

- 10.1 **Chapter 10: Hydrology, Hydrogeology and Soils** of the Environmental Impact Assessment (EIA) Report assesses the potential impacts of the Proposed Development on geology (including peat and carbon rich soils) and hydrology and hydrogeology (forming the water environment).
- 10.2 This Supplementary Environmental Information (SEI) Chapter supplements **Chapter 10** of the EIA Report. The methodology employed in this SEI Chapter is set out in **Chapter 10** of the EIA Report.
- 10.3 The following key documents should be read in conjunction with this SEI Chapter:
- EIA Report Volume 2 – **EIA Chapter 10: Hydrology, Hydrogeology and Soils**
 - EIA Report Volume 3f – **EIA Figures 10.1 to 10.8**
 - EIA Report Volume 4b – **EIA Technical Appendices 10.1 to 10.3**

Consultee Responses to EIA Report

- 10.4 **Table 10-1** provides a summary of the consultation with regards to hydrology and soils (including peat) related to the application layout of the Proposed Development. A reply to the consultee responses is also provided in **Table 10-1**.

Table 10-1: Consultee Responses

Consultee	Summary of Key Issues	Responses to Comments
Scottish Environment Protection Agency (SEPA) 18 December 2023	Due to a lack of information on peat and peatland, and due to the impact the development could have on peat and peatland, we object to the development until the issues outlined in section 1 below are addressed and we consider the proposals comply with Policy 5 of NRP4.	Noted. Comments addressed via additional peat probing and consultation letter submitted to SEPA on 25 April 2024.
SEPA 18 December 2023	Baseline peat probing does not follow recognised best practice but in most areas it provides enough information to inform layout. However further probing work is required in the following locations before we can give a view on the acceptability of the options put forward: <ul style="list-style-type: none"> • Proposed Track Alignment A2 • The track north of T5 • The turning spur south of T5 • The track north of T8 • The track spur to the Met Mast • Location of Met Mast 	Additional site-specific peat depth probing was undertaken in February 2024 to inform a revised infrastructure alignment. The revised design layout in relation to peat depth is shown on SEI Figures 10.1.6-10.01.7 and SEI Figures 10.2.3-10.2.5 . <ul style="list-style-type: none"> • Proposed Track Alignment A2 has been removed from the Proposed Development. • The track north of T5 has been realigned. • The turning spur south of T5 has been removed from the Proposed Development. • The track north of T8 has been realigned.

Consultee	Summary of Key Issues	Responses to Comments
		<ul style="list-style-type: none"> Changes to the track spur to the Met Mast have been considered and they would be kept as short as possible. Any change to these alignments would need to be further analysed during the detailed design process and pre-construction survey 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 pre-construction, the Applicant will endeavour to do so. Location of Met Mast has been verified through additional peat probing.
SEPA 18 December 2023	The crane hardstanding for T7 impacts on peat greater than 2.6m deep; the infrastructure in this area should be rearranged and areas of deeper peat avoided.	SEPA's recommendations have been considered as part of the revised design layout. The area where peat is greatest is the blade laydown area which would be for temporary use only and reinstatement would take place post construction. Support areas within the blade laydown area would be arranged at suitable locations to avoid deeper areas of peat minimising the disturbance of peat within this area. At the pre-construction stage, additional mitigation through finalising the design would address any impact on deeper peat with minor movements within the micro-siting allowance, to be assessed once detailed site surveys and site investigation are performed to inform the detailed design process.
SEPA 18 December 2023	The turbine infrastructure for T10 impacts on peat greater than 2.3m deep; the infrastructure in this area should be moved slightly further north and east so areas of deeper peat avoided.	SEPA's recommendations have been considered as part of the revised design layout. Additional peat probing over this area in 2024 shows that the proposed turbine base would very marginally encroach into an area of peat of up to 2.3m deep. It is proposed that at the pre-construction stage, additional mitigation through finalising the design would address any impact on deeper peat with minor movements northwards within the micro-siting allowance. This will be reviewed further once detailed site surveys and site investigation are completed.

Consultee	Summary of Key Issues	Responses to Comments
SEPA 18 December 2023	We note that some areas of the peatland are affected by grazing, drainage and fire but there are also areas of better-quality habitat. It is not clear how the quality of the peatland has informed the layout. We ask that a series of plans is produced showing peatland quality based on Guidance-Peatland-Action-Peatland-Condition-Assessment-Guide-A1916874.pdf (NatureScot). It should then be clearly demonstrated how the layout has avoided any areas of near natural habitat.	SEI Figure 8.3 is provided to show the peatland condition within the site in accordance with guidance. It is confirmed that there are no peat areas of near natural habitat recorded on the site and SEPA has confirmed they are content with the information provided.
SEPA 18 December 2023	<p>One of the significant ways that impacts on peat and peatland can be reduced is by minimising the extent of supporting infrastructure proposed. This has the additional benefit of reducing impacts on habitats (including wetlands) and reducing the need for building materials such as aggregate. We note that two track alignments are proposed and of these Option A results in less new track and as a result would be the overarching layout we would expect to be implemented. However there are elements of Option A which we would wish to see reconsidered. We would wish to see the layout amended to take into account the following to minimise new track:</p> <ul style="list-style-type: none"> • A track directly to T1 with a spur to the substation/BP4 area. • A track directly from T1 to T2 and repositioning of BP1. • Removal of the spur track to T3, T6, T5 and T9 and include infrastructure on main track. 	<p>SEPA's recommendations have been considered as part of the revised design layout.</p> <p>The revised design in relation to peat depth shown on SEI Figures 10.1.6-10.01.7 and SEI Figures 10.2.3-10.2.5.</p> <ul style="list-style-type: none"> • A track directly to T1 with a spur to the substation/BP4 area was considered. Slight amendments have been made in this area and the track to T1 has been removed along with the removal of T1. • A track directly from T1 to T2 and repositioning of BP1 was considered but is no longer considered relevant due to the removal of T1 from the Proposed Development. • The spur tracks to T3 and T5 have been removed. • Spurs to T6 and T9 were considered, however, the proposed infrastructure alignment is shown to satisfy 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 in these locations, no further changes are proposed here maintaining the application alignment with the separate spur. However, consideration has been given to the length of the spurs and they would be kept as short as possible.

Consultee	Summary of Key Issues	Responses to Comments
SEPA 18 December 2023	We would welcome further clarification, by way of a layout plan, showing where floating tracks can be utilised on site.	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. 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.
SEPA 18 December 2023	We note the contents of the Peat Management Plan (PMP). Contrary to the comment below Table 5-1 of the EIA Report it would seem that there are greater reuse requirements than material that will be excavated by the development; the proposed reuse in borrow restoration seem relatively high, so it is hoped that this will balance out. All reuse proposals must meet best practice guidance. The PMP should be updated to reflect changes in layout to address above.	<p>Table 5-1 and Annex 10.2A Excavated Material Calculations of EIA Report Technical Appendix 10.2 PMP shows the estimated balance of peat excavated on site.</p> <p>Annex 10.2A of the outline PMP has been updated as part of the SEI Report and is presented in SEI Annex 10.2A.</p> <p>The net balance shown is negative and more material appears to be being required than excavated from site due to all four borrow pits being included in the calculations. As noted in EIA Report Chapter 3 paragraph 3.46, four borrow pit search areas have been identified onsite, to construct the Proposed Development. Quarrying all of these borrow pits would provide a greater volume of rock than would be needed for the construction of the Proposed Development but would allow for the current uncertainty of the quality of the rock at these locations. A proportion of aggregate for track formations and subbases is assumed to be sourced from the proposed four onsite borrow pits with all higher grade aggregate assumed to be sourced offsite. Additionally, less material may be reused in the borrow pits than included in the current calculations. The EIA Report TA10.2 PMP does note that values are indicative at this stage and when further ground investigation information becomes available following post-consent investigations, the figures would be re-calculated in</p>

Consultee	Summary of Key Issues	Responses to Comments
		<p>order to create a suitable balance of materials.</p> <p>The PMP presented in the EIA Report is a Stage 1 PMP which has been undertaken to ensure that there is an understanding of the extent of peat on site, the total amount of peat that might be excavated, a demonstration that the current design avoids areas of deep peat where possible and that the reuse of the excavated materials is certain and minimised where possible, and in line with updated industry good practices and guidance. The total peat volumes are based on a series of assumptions for the layout of the Proposed Development and peat depth data averaged across discrete areas of the site. Such parameters can still vary over small scale areas and therefore topographic changes in the bedrock profile could impact the total accuracy of the volume calculations. The accuracy of these predictions would be improved and updated with the results of further detailed peat probing data, to be carried out during refinement in accordance with 2017 guidelines, as part of detailed ground investigation to be undertaken post-consent. The figures shown in the tables suggest that the volumes of peat excavated onsite create surplus materials which could be used within habitat restoration areas. Post-consent, the Stage 1 PMP and the Outline Construction Management Plan (CEMP) would be updated with information obtained during detailed ground investigations and design stage. These plans would be developed to update the Outline CEMP, with post-construction restoration plans.</p>
SEPA 18 December 2023	<p>If the above issues can be addressed we also ask that the following issues be covered via conditions.</p> <ul style="list-style-type: none"> To ensure that construction works are carried out in line with the measures prescribed in the submission (a) Adherence to the mitigation outlined in the Schedule of Commitments (Table 16-1), (b) All works to 	<p>Noted and accepted.</p> <p>The Outline CEMP included as EIA Report TA3.1 remains valid and will be developed into a final CEMP in line with an appropriately worded planning condition.</p> <p>The Outline Habitat Management Plan (OHMP) has been updated (SEI</p>

Consultee	Summary of Key Issues	Responses to Comments
	<p>be carried out following the Outline CEMP (Technical Appendix 3.1).</p> <ul style="list-style-type: none"> To ensure that peatland habitats lost by the development are offset and environmental enhancements are achieved at least 77 ha of peatland restoration shall be carried out in the areas identified in the Outline Habitat Management Plan (Appendix 8.5). We encourage the developer to consider increasing this area so that it is more in line with recent NatureScot guidance. To ensure that reinstatement and decommission works are carried out in a way that is sensitive to the environment a finalised Decommissioning and Restoration Plan with proposals in line with SEPA's Guidance on the life extension and decommissioning of onshore wind farms. 	TA8.5) to increase the restoration and enhancement of habitats for the site.
SEPA 18 June 2024	We welcome the additional peat probing work that has been carried out; this addresses the gaps we identified in our previous response.	Noted.
SEPA 18 June 2024	We note that the additional peat probing information has resulted in the proposal to amend the layout in a number of areas and other amendments have been made to reduce the overall length of track. We support all these amendments and would be able to withdraw our objection to the application if this information was formally submitted. Other variations, such as at T10, could further reduce excavation however as they are relatively minor we are content for this to be addressed in a finalised Peat Management Plan (PMP), which we will request by condition.	Noted. The amendments as discussed and agreed with SEPA are reflective of the revised design layout presented in this SEI Chapter 2 and 3 .
SEPA 18 June 2024	We thank you for providing information on peatland condition. We note that there is no near natural habitat on the site and as a result consider this issue addressed.	Noted. This is confirmed by the inclusion of SEI Figure 8.3 .
SEPA 18 June 2024	We note that no floating tracks are proposed due to site gradients, but that this will be reassessed at the pre-construction stage. We are content with this approach, the results of which can be picked up in the final PMP.	Noted.
SEPA 18 June 2024	We welcome the proposal to update the draft PMP on the basis of the above amendments.	Noted. Annex 10.2A of the outline PMP has been updated as part of the SEI Report and is presented in SEI Annex 10.2A .
The Highland Council – Environmental Health	The Applicant has undertaken a private water supply risk assessment which confirms there are no supplies identified as being at risk because of the development.	Noted. The revised design layout has no impact on the private water supply

Consultee	Summary of Key Issues	Responses to Comments
21 December 2023		risk assessment presented in the EIA Report.
NatureScot 12 April 2024	Priority peatland habitat: We advise that the extent of peatland restoration proposed to compensate for impacts to priority peatland habitats falls short of our guidance. We advise that the proposals are currently not sufficient to overcome the impacts from the development or to offer enhancement. We recommend that a revised Habitat Management Plan is submitted which includes additional areas of restoration.	The Outline Habitat Management Plan has been updated in SEI TA8.5: OHMP Update .
NatureScot 12 April 2024	The National Planning Framework 4 (NPF4) recognises that significant weight should be given to address both the global climate change crisis (Policy 1) and the global nature/biodiversity crisis (Policy 3), when considering individual proposals. In addition the protection of soils (Policy 5) intends to protect carbon-rich soils including restoration of peatlands and minimising disturbance to soils from development.	Noted. The revised design layout complies with NPF4.
NatureScot 12 April 2024	The habitat survey undertaken for this application found the site to mainly support blanket bog and wet heath, identifying the presence of priority peatland habitats on site. The EIA Report indicates that while some of this habitat is likely to be in good condition, recovering well from the previous fire, the species composition appears likely to have been adversely affected.	Noted. This is addressed in SEI TA8.5: OHMP Update .
NatureScot 12 April 2024	We welcome the restoration proposals which would involve forest to bog restoration over 77.75ha of peatland habitat within afforested areas. The survey information identifies that this area is appropriate for this type of restoration, with peat depth greater than 0.5m, and rides between the forestry coupes supporting blanket bog habitat. These areas should be maintained as far as possible as they will be a natural seed source for the restoration area. The proposals are for the removal of the plantation trees, surface smoothing, and drain blocking to raise the water table. The risk of grazing and fire would be controlled and a monitoring programme implemented. There is mention of whole tree extraction and whole tree mulching. We agree that whole tree extraction is preferable to mulching as the location of the mulch could cause problems with restoration in the future, through smothering, or issues with identifying the location of ditches. The EIAR proposes that the above restoration area will provide compensation and biodiversity enhancement for the impacts of the development. Depending on the access route option selected, a	The Outline Habitat Management Plan has been updated in SEI TA8.5: OHMP Update . Annex 10.2A of the outline PMP has been updated as part of the SEI Report and is presented in SEI Annex 10.2A .

Consultee	Summary of Key Issues	Responses to Comments
	<p>total loss of up to 27.41ha of priority peatland habitat is estimated for this proposal. The restoration area proposed is therefore approximately three times the area that is expected to be impacted by the development. Our recommendation is that the area of restoration should be ten times that which is lost, and as such we would be looking for restoration to be approximately 259.1ha if route A and A1 is used. We therefore consider that the proposed area of restoration is not sufficient to overcome the impacts of the development. The council may wish to request that a review of the Habitat Management Plan is carried out and that additional areas are proposed for restoration. We also recommend that the area of enhancement should be in addition to this, for example 10% of the baseline blanket bog habitat.</p> <p>We advise that a revised Habitat Management Plan is provided which includes additional areas for restoration. The Plan should identify the current issues or damage within any areas to be restored (i.e. locations of drains, peat hags, bare peat) with a clear identification of which are to be restored and what techniques are to be used. Further advice can be found at: https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management. We recommend that peatland restoration techniques follow the advice in the Peatland ACTION Technical Compendium (https://www.nature.scot/doc/peatland-action-technical-compendium).</p>	

Design Amendments

- 10.5 The design amendments from the site layout of the Balmeanach Wind Farm application (as detailed in the EIA Report) are detailed in full in **SEI Chapter 2: Site Design** and **SEI Chapter 3: Description of the Development** and shown on **SEI Figure 3.1a-b**. The design amendments which have been considered in relation to hydrology and peat are:
- removal of Turbine 1 (T1), track to T1 and associated foundation and crane hardstanding;
 - amendments to the track layout to reduce the length of track required, remove spurs and turning heads where possible and reorientate crane hardstandings for T4 and T5 to reduce effects on peat;
 - the relocation of the substation to within the footprint of Borrow Pit 3;
 - inclusion of the proposed link 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

(required only in the absence of the Ben Sca Wind Farm or the Ben Sca Redesign Wind Farm infrastructure).

- 10.6 Changes to the Peat Landslide Hazard Risk Assessment (PLHRA), Peat Management Plan (PMP) have been considered as part of this SEI to reflect the design amendments. Updated assessments for the PLHRA and PMP are included in this chapter and the updated figures which accompany these are provided in **SEI Volume 4**.
- 10.7 An updated OHMP is presented in **SEI TA8.5**.

Revised Figures

- 10.8 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 relevant EIA Figures:
- **SEI Chapter 10 Figures** (supersede **EIA Figures 10.1 to 10.5 and 10.8**):
 - **SEI Figure 10.1:** Local Hydrology
 - **SEI Figure 10.2:** Soils
 - **SEI Figure 10.3:** Carbon and Peatland 2016 Map
 - **SEI Figure 10.4:** Superficial Geology
 - **SEI Figure 10.5:** Bedrock Geology
 - **SEI Figure 10.8:** Areas of Potential GWDTE
 - **SEI TA10.1: PLHRA Figures** (supersede **EIA Figures 10.1.1 to 10.1.8**):
 - **SEI Figure 10.1.1:** Site Location
 - **SEI Figure 10.1.2:** Site Layout
 - **SEI Figure 10.1.3:** Superficial Geology
 - **SEI Figure 10.1.4:** Solid Geology
 - **SEI Figure 10.1.5:** Geomorphology
 - **SEI Figure 10.1.6:** Peat Depth
 - **SEI Figure 10.1.7:** Peat Depth Over 0.5m
 - **SEI Figure 10.1.8:** Slope
 - **SEI Figure 10.1.9:** Peat Slide Risk
 - **SEI TA10.2: Peat Management Plan (PMP) Figures** (supersede **EIA Figures 10.2.1 to 10.2.5**):
 - **SEI Figure 10.2.1:** Site Location
 - **SEI Figure 10.2.2:** Site Layout
 - **SEI Figure 10.2.3:** Peat Depth
 - **SEI Figure 10.2.4:** Peat Depth Over 0.5m
 - **SEI Figure 10.2.5:** Detailed Peat Depth Analysis
 - **SEI TA10.3: Private Water Supply Risk Assessment (PWSRA) Figures** (supersedes **EIA Figure 10.3.1**):

- SEI Figure 10.3.1: PWS Sources

Assessment of Design Amendment Effects

Water Environment

- 10.9 The revised layout does not change the findings or assessment presented in **Chapter 10** of the EIA report including the private water supply assessment which is presented in **EIA Report TA10.3**. Best practice and mitigation detailed within **Chapter 10** of the EIA Report remains applicable and can be used to mitigate potential adverse effects on the local hydrology and hydrogeology. These will be included as part of the final CEMP which will be secured by a planning condition (post any consent) and would be prepared and agreed with statutory consultees prior to construction commencing.
- 10.10 In addition, as discussed in **Chapter 10** of the EIA Report, a programme of water quality monitoring is proposed prior to and during construction.

Potential Construction Effects

Peat and Soils

- 10.11 As per the EIA Report, it is shown (see PLHRA and PMP sections below) that the disturbance of peat and soils as a result of the construction of the revised layout can be minimised and the peat deposits safeguarded. The revised layout does not change the findings of **Chapter 10** of the EIA Report and the potential effect would remain as negligible and not significant.

Pollution Risk

- 10.12 Best practice and mitigation measures detailed within **Chapter 10** of the EIA Report remain applicable and can be used to mitigate potential adverse effects on the local hydrology and hydrogeology. These will be included as part of the final CEMP which will be secured by a planning condition (post any consent) and would be prepared and agreed with statutory consultees prior to construction commencing. In addition, as discussed in **Chapter 10** of the EIA Report, a programme of water monitoring is proposed prior to and during construction.
- 10.13 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to construction effects and pollution risk. The potential effects would remain as negligible and therefore not significant.

Erosion and Sedimentation

- 10.14 As detailed in the **Chapter 10** of the EIA Report, adherence to good practice measures would ensure that any material generated from construction works such as the excavation of borrow pits, hardstanding construction, and watercourse crossing construction, would not be transported into nearby watercourses, to groundwater, or onto areas of peat.
- 10.15 Location specific good practice measures will form part of the final CEMP and would be used to minimise the potential for erosion and sedimentation.
- 10.16 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to construction effects and erosion / sedimentation. The potential effects would remain as negligible and therefore not significant.

Fluvial Flood Risk

- 10.17 As detailed in the **Chapter 10** of the EIA Report, adherence with good practice measures including appropriate drainage design and compliance with the final CEMP would limit potential fluvial flood risk impacts to being local and short duration and so of negligible magnitude.
- 10.18 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to construction effects and fluvial flood risk. The potential level of effect on flood risk, would therefore remain as negligible and not significant.

Infrastructure and Man-made Drainage

- 10.19 As detailed in the **Chapter 10** of the EIA Report, the application layout of the Proposed Development has avoided areas of high ecological or habitat interest, including Groundwater Dependent Terrestrial Ecosystems (GWDTE), wherever possible. This also applies to the revised layout. Furthermore, the superficial and bedrock deposits have little groundwater and therefore limited or little dewatering is likely to be required. There remains potential however, for local dewatering of soils near cable trenches, turbine bases and borrow pits, without incorporation of mitigation measures.
- 10.20 Location specific good practice measures will form part of the final CEMP and would be used to minimise the potential for drainage and dewatering effects.
- 10.21 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to construction effects and infrastructure/man-made drainage leading to dewatering. The potential significance of effect of changing groundwater levels and flow due to dewatering remains as negligible and therefore not significant.

Potential Operational Effects

Peat and Soils

- 10.22 No excavation, movement or storage of peat or soils is anticipated during the operational site life.
- 10.23 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to operational effects and peat/soils. The potential effects would remain as negligible and therefore not significant.

Pollution Risk

- 10.24 The possibility of a pollution event occurring during operation is very unlikely. There would be a limited number of vehicles required onsite for routine maintenance and for the operation of the proposed development. Storage of fuels/oils onsite would be limited to the hydraulic oil required in turbine gearboxes and this would be bunded (satisfying storage guidance) to prevent fluid escaping.
- 10.25 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to operational effects and pollution risk. The potential effects would remain as negligible and therefore not significant.

Erosion and Sedimentation

- 10.26 During the operation of the Proposed Development, it is not anticipated that there would be any significant excavation or stockpiled material beyond the clearing of SuDS features to maintain their efficiency, reducing the potential for erosion and sedimentation effects.
- 10.27 Immediately post-construction, newly excavated drains and track dressings may be prone to erosion as any vegetation would not have matured. Appropriate design of the drainage system, incorporating sediment traps, would reduce the potential for the increased delivery of sediment to natural watercourses. Immediately post-construction, flow attenuation measures would remain and be maintained to slow runoff velocities and prevent erosion until vegetation becomes established.
- 10.28 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to operational effects and erosion/sedimentation. The potential effects would remain as negligible and therefore not significant.

Fluvial Flood Risk

- 10.29 The risk of an effect from fluvial flood risk arises as a result of a potential restriction of flow at the existing watercourse crossings following intense rainfall. In accordance with good practice, routine inspection of the culverts or bridges at the site would be undertaken, reducing the likelihood of a blockage occurring. In the unlikely event of a blockage any flooding would be localised.
- 10.30 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to operational effects and fluvial flood risk. The potential effects would remain as negligible and therefore not significant.

Infrastructure and Man-made Drainage

- 10.31 Operation of the Proposed Development would require limited activities relative to the construction phase.
- 10.32 The revised layout does not change the findings of **Chapter 10** the EIA Report with regards to operational effects and infrastructure/man-made drainage leading to dewatering. The potential effects would remain as negligible and therefore not significant.

Peat Landslide Hazard Risk Assessment (PLHRA)

- 10.33 There is sufficient peat probe data to assess the revised layout.
- 10.34 Review of the revised layout indicates that there are further areas of peat stability risk identified (as detailed in SEI Figure 10.1.8: Peat Slide Risk) and these are addressed within **Table 10-2**. The conclusions and recommendations within **Technical Appendix 10.1** of the EIA Report for the previous peat stability risk areas remain valid.
- 10.35 For the further areas of peat stability risk identified, these areas can be mitigated as detailed within **Table 10-2** with the mitigation provided within **Technical Appendix 10.1** of the EIA Report remaining valid.

Table 10-2: Stability Hazard Ranking Assessment

Location	Coordinates (NGR)		Risk Rating (normalised)	Impact Rating (normalised)	Hazard Ranking (normalised)	Mitigation	Revised Hazard Ranking
17	133493	846451	High (4)	Low (2)	Significant (6)	The access track is constrained to pass through this area. The peat is locally deep and will be excavated to allow the track to be founded on a firm foundation. Good construction practices required to mitigate against risk.	Insignificant
30	133071	848258	Medium (3)	Very Low (1)	Insignificant (3)	The access track is constrained to pass through this area. The peat is locally deep and will be excavated to allow the track to be founded on a firm foundation. Good construction practices required to mitigate against risk.	Insignificant
31	132910	848469	Medium (3)	Low (2)	Significant (6)	The location is on site of the access track with localised thin peat (<1 m), the area will be excavated prior to construction hence removing potential risk.	Insignificant
32	132796	848650	Medium (3)	Low (2)	Significant (6)	The location is on site of the access track with localised thin peat (<1 m), the area will be excavated prior to construction hence removing potential risk.	Insignificant
33	132645	848833	Medium (3)	Low (2)	Significant (6)	The access track is constrained to pass through this area. The peat is locally deep and will be excavated to allow the track to be founded on a firm foundation. Good construction practices required to mitigate against risk.	Insignificant
34	132606	849005	High (4)	Low (2)	Significant (6)	The access track is constrained to pass through this area. The peat is locally deep	Insignificant

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Location	Coordinates (NGR)		Risk Rating (normalised)	Impact Rating (normalised)	Hazard Ranking (normalised)	Mitigation	Revised Hazard Ranking
						and will be excavated to allow the track to be founded on a firm foundation. Good construction practices required to mitigate against risk.	
35	132607	849227	Medium (3)	Low (2)	Significant (6)	The access track is constrained to pass through this area. The peat is locally deep and will be excavated to allow the track to be founded on a firm foundation. Good construction practices required to mitigate against risk.	Insignificant
36	132581	849347	Medium (3)	Low (2)	Significant (6)	The location is on site of the access track with localised thin peat (<1 m), the area will be excavated prior to construction hence removing potential risk.	Insignificant
37	132568	849397	Medium (3)	Low (2)	Significant (6)	The location is on site of the access track with localised thin peat (<1 m), the area will be excavated prior to construction hence removing potential risk.	Insignificant
38	132543	849436	High (4)	Low (2)	Significant (6)	The location is on site of the access track with localised thin peat (<1 m), the area will be excavated prior to construction hence removing potential risk.	Insignificant
39	132404	849448	Medium (3)	Low (2)	Significant (6)	The access track is constrained to pass through this area. The peat is locally deep and will be excavated to allow the track to be founded on a firm foundation. Good construction practices required to mitigate against risk.	Insignificant

Peat Management Plan (PMP)

- 10.36 As a result of the revised layout, the peat excavation volumes have been updated as presented in **SEI Annex 10.2A**. This annex supersedes **EIA Annex 10.2A** which was included in the Peat Management Plan (PMP) **EIA TA10.2**. The total excavated volume of peat for track option B onsite (worst-case maximum amount of peat to be excavated) has been reduced from 91,033m³ to 80,527m³. The additional consideration of the proposed link track (in the absence of Ben Sca Redesign Wind Farm or the consented Ben Sca Wind Farm) and permanent Compound 1 results in an extra 12,171m³ needing to be excavated. Overall, the potential reuse volume is calculated at 105,016m³ which is 12,318m³ greater than the total excavated 92,698m³.
- 10.37 The recommendations on excavation and re-use of soils and peat detailed within the PMP (**EIA TA10.2**) remain applicable and will be updated in a final Stage 2 PMP which would be secured by a planning condition (post any consent) prior to construction commencing.

Cumulative Development Update

Cumulative Baseline

- 10.38 Since the submission of the application, the cumulative wind farm situation in the study area has changed. The relevant changes to the cumulative baseline are as follows:
- Ben Sca Redesign (application – revised layout)
 - Ben Aketil Repowering and Extension (application)
 - Glen Ullinish II (Redesign) (application)
 - Beinn Mheadhonach Redesign (application)
 - Edinbane Repowering and Extension (scoping)
 - Edinbane – Land at 4 Edinbane (screening)

Cumulative Effects

- 10.39 The combined effects which would result should the Proposed Development be constructed alongside the proposed Ben Sca Redesign Wind Farm, are discussed in full in **Volume 5** of this SEI Report.
- 10.40 The updated cumulative baseline does not change the cumulative assessment in relation to hydrology and soils presented in the **Chapter 10** of the EIA Report, as the cumulative developments will be developed and managed in accordance with current best practice, industry standards and relevant legislation, planning policy and guidance regulated by statutory consultees. These standards ensure, with respect to the hydrology and soils, potential impacts are mitigated and controlled at source. The mitigation measures that are presented in the EIA ensure there are no likely effects beyond the application boundary.
- 10.41 It is therefore considered that no cumulative effects on hydrology and soils are anticipated as a result of the Proposed Development.

Summary of Changes to the Significance of Effects

- 10.42 The potential effects on peatland would be reduced as a result of the revised layout of the Proposed Development due to reduced peat excavation volumes but overall do not change the findings of **Chapter 10** of the EIA Report and the best practice measures detailed in the EIA Report remain wholly applicable and relevant to the revised design layout.
- 10.43 The significance of likely effects therefore remains as assessed in the EIA Report and no significant effects would arise as a result of the amendments to the Proposed Development. No further additional site investigation or monitoring is required.

Conclusions

- 10.44 The revised layout has reduced the potential effects on peat due to reduced excavation requirements when compared to the application layout through reduction in proposed track length and positioning on areas more suitable for infrastructure.
- 10.45 The revised layout will not result in any change to the significance of effects as presented in **Chapter 10** of the EIA Report, which were not significant.