

Strathy Wood Wind Farm Grid Connection Additional Information

Addendum to Habitats Regulation Appraisal and World Heritage Site Assessment

June 2025



STRATHY WOOD WIND FARM GRID CONNECTION: ADDITIONAL INFORMATION

Addendum to Habitats Regulation Appraisal and World Heritage Site
Assessment

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EXECUTIVE SUMMARY

Scottish and Southern Electricity Networks Transmission (SSEN Transmission) is seeking consent under section 37 of the Electricity Act 1989, and deemed planning permission under section 57(2) of the Town and Country Planning (Scotland) Act 1997 (as amended), to construct and operate a new 132 kV double circuit overhead line (OHL), herein after referred to as the Proposed Development. The OHL would connect the consented Strathy Wood Wind Farm to the electricity transmission network at Connagill 275/132 kV substation via a 'T' on the existing Strathy North Wind Farm 132 kV trident 'wood pole OHL.

The Proposed Development would initially transport electricity generated by the consented Strathy Wood Wind Farm but would eventually be utilised as shared infrastructure to facilitate part of the connection requirements for the consented Strathy South Wind Farm. This phased approach would allow renewable electricity generated by Strathy Wood Wind Farm to be exported to the electricity network sooner, whilst also providing opportunities for shared infrastructure in the longer term.

The Proposed Development would commence from a new Cable Sealing End (CSE) compound near to Strathy Wood Wind Farm on-site substation. From the CSE compound, approximately 4.5 km of 132 kV double circuit OHL supported by steel lattice towers would head north to connect to the existing network via a 'T' onto the existing Strathy North 132 kV trident 'H' wood pole OHL, which would transport the electricity generated from Strathy Wood Wind Farm to the existing Connagill 275/132 kV substation for onward transmission. Two trident 'H' wood poles would be constructed to complete the 'T-in' connection with the existing Strathy North 132 kV trident 'H' wood pole OHL.

Construction access would utilise an existing junction off the A836 and an existing track, which was upgraded for the Strathy North Wind Farm, with some limited new access spurs (permanent and temporary) to access each tower from the existing track.

The Proposed Development would be constructed partially within the Caithness and Sutherland Peatlands Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site, and the Flow Country World Heritage Site (WHS).

NatureScot has objected to the Proposed Development due to potential impacts on the qualifying features of the Caithness and Sutherland Peatlands SAC and Ramsar site and the Outstanding Universal Value (OUV) of the WHS. They identified that the predicted loss of 2.47 ha (although the EIA Report stated 2.49 ha) of blanket bog would have long-term and irreversible effects on the extent and function of these habitats, and that the loss of *Sphagnum* and other peat-forming species would further impair the ecological function of the blanket bog. Additional concerns were raised regarding the effects of the Proposed Development on wet heath habitats with *Erica tetralix* and the potential loss of these habitats.

A detailed Peatland Condition Assessment (PCA) was conducted by SLR Consulting Ltd in 2025. The report found that there is little functioning blanket bog habitat within the Proposed Development footprint, with only the area near the access track leading to Tower 19 showing potential for active peat formation. However, this area is classified as artificially drained and is close to historical peat cuttings, making it unlikely to be classified as functioning blanket bog. Furthermore, habitats were found to be dominated by purple moor-grass (*Molinia caerulea*), indicative of poor-quality peatland habitats typically found in areas of high grazing and anthropogenic influence, and non-peat-forming. *Sphagnum* mosses were found sporadically, primarily consisting of non-peat-forming species.

This report has considered the information provided in the PCA conducted by SLR Consulting Ltd (2025) and has concluded that construction and operation of the Proposed Development is unlikely to significantly affect the function of blanket bog habitats, the presence of wet heath with *Erica tetralix* or the abundance of *Sphagnum* mosses.

Based on the detailed PCA information, it is considered that the Ecological Impact Assessment (EclA) associated with the section 37 submission (Ref: ECU00005221), has taken a conservative approach when identifying potential effects on 2.49 ha of blanket bog habitats. The actual effect on qualifying habitats and their conservation objectives is likely to be imperceptible, particularly in the context of the overall SAC / Ramsar site boundaries (all habitats identified as qualifying habitats to be affected by the construction and operation of the Proposed Development are in an unfavourable condition and affected by previous and ongoing landuse activities).

The evidence from the PCA supports the conclusions of the Proposed Development's EclA and Shadow Habitats Regulation Appraisal (HRA) that there would be no significant adverse effects on the qualifying

features of the Caithness and Sutherland Peatlands SAC. The condition of the SAC qualifying habitats is classified as unfavourable with currently limited opportunities for improvement. With enhancement measures proposed, such as the Connagill Cluster Habitat Management Plan which will seek to provide substantial areas of peatland restoration, bringing about improvements to the overall condition of these habitats within the SAC, there is likely to be an overall conservation benefit to these qualifying interests. As such, the conservation objectives and integrity of the SAC and Ramsar sites remain unaffected by the Proposed Development.

Similarly, the Proposed Development would not adversely affect the OUV of the WHS. Identified peatland habitats were found to be non-functioning, with little or no *Sphagnum* moss present. A Habitat Management Plan is proposed to enhance peatland habitats beyond predicted impacts, providing a net benefit to the WHS and its OUV in the long term. This will increase its nature value and support the SAC ecosystem as a whole.

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1 INTRODUCTION

1.1 Background

- 1.1.1 Scottish and Southern Electricity Networks Transmission (“SSEN Transmission”) are applying under section 37 of the Electricity Act 1989, and deemed planning permission under section 57(2) of the Town and Country Planning (Scotland) Act 1997 (as amended), for consent to construct and operate a new 132 kV overhead line (OHL) herein after referred to as the Proposed Development, to connect the consented Strathy Wood Wind Farm to the electricity transmission system at Connagill 275/132 kV substation via a ‘T’ on the existing Strathy North Wind Farm 132 kV trident wood pole OHL.
- 1.1.2 The Proposed Development would initially transport electricity generated by the consented Strathy Wood Wind Farm but would eventually be utilised as shared infrastructure to facilitate part of the connection requirements for the consented Strathy South Wind Farm. This phased approach would allow renewable electricity generated by Strathy Wood Wind Farm to be exported to the electricity network sooner, whilst also providing opportunities for shared infrastructure in the longer term.
- 1.1.3 The Proposed Development forms part of a wider connection strategy for renewable generation in the area referred to as the Connagill Cluster Grid Connections. The developments that make up the Connagill Cluster Grid Connections include the consented Strathy Wood and Strathy South wind farms, the proposed Melvich Wind Energy Hub and proposed Kirkton Energy Park. To facilitate the Connagill Cluster Grid Connections, a new switching station, known as Strathy Switching Station, would also be required. In light of these connection requirements, the Applicant has taken a rationalised approach to these connection requests with the aim of utilising shared infrastructure where practicable. **Figure 1** provides an overview of the Connagill Cluster projects including the Proposed Development.
- 1.1.4 The Proposed Development would be constructed partly within the Caithness and Sutherland Peatlands Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar site, and the Flow Country World Heritage Site (WHS). **Figure 2** provides the location of the Proposed Development and the designated sites in the surrounding landscape.

1.2 Project Description

- 1.2.1 The Proposed Development would commence from a Cable Sealing End (CSE) compound in the vicinity of the Strathy Wood on-site substation. From the CSE compound, approximately 4.5 km of 132 kV double circuit OHL supported by steel lattice towers would head in a northerly direction where it would ‘T’ onto the existing Strathy North Wind Farm trident ‘H’ wood pole 132 kV OHL circuit. Two trident ‘H’ wood poles would be constructed to complete the connection between the new 132 kV OHL supported by steel lattice towers and the existing Strathy North trident ‘H’ wood pole 132 kV OHL.
- 1.2.2 The construction access for the Proposed Development would utilise the existing access track that was upgraded for the construction of the operational Strathy North Wind Farm. The upgrade of the track is currently being extended for use during the construction of the consented Strathy Wood and Strathy South wind farms. The Proposed Development would also use the existing Strathy North Wind Farm access tracks along with a new section of permanent track to access towers positioned on the western side of the River Strathy. The new section of permanent track would require some limited forestry felling. New permanent and temporary ‘spurs’ constructed off the existing track to access each tower / pole location would be required where there are no existing tracks.
- 1.2.3 As part of the Proposed Development design, a buffer of more than 20 m has been applied to watercourses and water features, including the River Strathy, where technically and practically possible. All the proposed towers have been designed to be outwith the 20 m watercourse buffer however the temporary working areas (in some locations) may be a minimum of 10 m from watercourses and water features. These areas would be demarked and necessary additional safeguards agreed with the site Environmental Clerk of Works (EnvCoW) prior to construction works commencing. A 10 m buffer is specified in SSEN Transmission’s General Environmental

Management Plan (GEMP) Working in or Near Water and has been previously agreed with stakeholders. This buffer is typical for developments of this nature and provides a standoff to watercourses and water features that, in combination with industry good practice, minimises the risk to water bodies. The Proposed Development would cross over the River Strathy at two locations: NGR NC 82402 56287 (between Towers 1 and 2) and NC 82780 56932 (between Towers 4 and 5).

- 1.2.4 In addition to the above, the embedded mitigation for the Proposed Development incorporates a comprehensive range of environmental measures integrated from the design stage through to operation to avoid or minimise impacts on nature conservation and biodiversity. Careful routing and alignment selection, informed by ecological survey data, ensure significant effects on habitats and species are reduced where practicable. This includes avoidance of sensitive habitats including areas of deep peat or those considered potentially ground water dependent, and routing the Proposed Development to areas of shallower peat and to marginally steeper sloping ground where hydrological effects to peatland habitats from construction would be reduced.
- 1.2.5 During construction, industry best practices and detailed environmental management plans — including General Environmental Management Plans (GEMPs), Species Protection Plans (SPPs), and a site-specific Construction Environmental Management Plan (CEMP) — will be implemented to control impacts such as noise, dust, pollution, and habitat disturbance. Pre-construction surveys and micro-siting would further minimise effects on protected species and sensitive habitats. Construction access would prioritise use of existing tracks where possible, with new access routes designed to reduce peat disturbance and habitat loss. Following construction, habitat reinstatement and restoration, supported by site-specific soil and peat management and ecological oversight from a dedicated Ecological Clerk of Works (ECOW), would ensure recovery of affected areas. Operational mitigation would include maintaining reduced-width access tracks and careful vegetation management under ecological guidance to safeguard long-term habitat integrity.
- 1.2.6 The design process of the Proposed Development has therefore sought to identify the least sensitive route based on the constraints identified, and through the construction and operational phase of the Proposed Development, continued to consider potential impacts to sensitive receptors and reduce the overall effects.

1.3 Designated Sites

- 1.3.1 **Table 1** below details the (non-avian) designated sites within the Zone of Influence of the Proposed Development (considered to be 10 km) and the features for which they are recognised.

Table 1: Summary of the European sites within a Zone of Influence (Zol) of 10 km of the Proposed Development

European site	Approx. distance from Proposed Development (km)	Qualifying species/ habitats (non-ornithological)	Threats and pressure to site integrity	Potential Impact pathways linking to the Proposed Development
Caithness and Sutherland Peatlands SAC	Overlaps the Proposed Development	<p>Habitats and species that are a primary reason for selection of this site:</p> <ul style="list-style-type: none"> Blanket bog Natural dystrophic lakes and ponds Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> Otter <i>Lutra lutra</i>. Marsh saxifrage <i>Saxifraga hirculus</i> <p>Habitats and species present as a qualifying feature, but not a</p>	<ul style="list-style-type: none"> Grazing pressure and trampling (particularly due to deer). Forestry operations Burning Active drainage/ water management and vehicle use affecting hydrology Water pollution 	<p>Loss of and/ or damage to habitat (permanent and temporary)</p> <p>Loss of and/ or damage to aquatic habitats supporting otter.</p> <p>Disturbance to otter.</p> <p>Loss of and/ or damage to habitats supporting marsh saxifrage.</p>

European site	Approx. distance from Proposed Development (km)	Qualifying species/ habitats (non-ornithological)	Threats and pressure to site integrity	Potential Impact pathways linking to the Proposed Development
<p>primary reason for selection of this site:</p> <ul style="list-style-type: none"> Northern Atlantic wet heaths with <i>Erica tetralix</i> Transition mires and quaking bogs Depressions on peat substrates of the Rhynchosporion 				
Caithness and Sutherland Peatlands Ramsar	Overlaps the Proposed Development	<p>Criterion 1:</p> <ul style="list-style-type: none"> Blanket bog Mire Oligotrophic lochs Dystrophic lochs Lochans and pools Wet heaths <p>Criterion 2:</p> <ul style="list-style-type: none"> Supports nationally rare mosses <i>Sphagnum lindbergii</i> and <i>Shapgnum majus</i>. Nationally scarce bog orchid <i>Hammarbya paludosa</i>. Invertebrate assemblage including <i>Oreodytes alpinus</i> Otter Freshwater pearl mussel <i>Margaritifera margaritifera</i> 	Same as Caithness and Sutherland Peatlands SAC	<p>Loss of and/ or damage to habitat (permanent and temporary)</p> <p>Loss of and/ or damage to habitats supporting nationally rare mosses.</p> <p>Loss of and/ or damage to habitats supporting bog orchid.</p> <p>Loss of and/ or damage to habitats supporting invertebrates.</p> <p>Loss of and/ or damage to aquatic habitats supporting otter.</p> <p>Disturbance to otter.</p> <p>Loss of and/ or damage to aquatic habitats supporting freshwater pearl mussel.</p>
Strathly Point SAC	5.06	<p>Habitats and species that are a primary reason for selection of this site:</p> <ul style="list-style-type: none"> Annex I habitat that is the primary reason for selection is Vegetated Sea cliffs of the Atlantic and Baltic Coasts. Vegetation communities include maritime heath and grassland, with a large population of Scottish primrose. 	<ul style="list-style-type: none"> Livestock (grazing and trampling) Anthropogenic disturbance (visitors) Invasive/ vigorous native species colonising sea cliffs 	No impact pathways identified due to distance from Proposed Development and lack of habitat connectivity.

1.4 Previous Reports

- 1.4.1 In support of the Proposed Development's section 37 application, submitted in November 2024, a Shadow Habitats Regulation Appraisal (HRA) and World Heritage Site (WHS) Assessment were submitted as Appendices 7.6 and 7.7, respectively, in Volume 4 of the EIA Report. These reports detailed the qualifying features of the designating sites, the potential impacts the Proposed Development may have to these, and described the potential effects both singularly from the Proposed Development, and cumulatively in-combination with other developments within the surrounding area.

1.5 Statutory Consultee Responses

- 1.5.1 Comments to the Proposed Development's section 37 application have been received from statutory consultees. NatureScot objected to the Proposed Development in a response dated 17.02.2025 (NatureScot reference: CDM178204) and The Highland Council (a preliminary objection) on 09.05.2025. The relevant sections of these responses are provided below for reference:

NatureScot

*"The proposal could affect internationally important natural heritage interests and **we therefore object to this proposal** due to impacts to Caithness and Sutherland Peatlands Special Area of Conservation (SAC) and Special Protection Area (SPA), and the Flow Country World Heritage Site (WHS).*

a) Caithness and Sutherland Peatlands SAC

The proposal is almost entirely within this SAC, protected for its peatland and freshwater habitats, otter and marsh saxifrage.

Our advice is that this proposal is likely to have a significant effect on blanket bog, wet heathland with cross-leaved heath and otter features of this SAC. Consequently, Scottish Government, as competent authority, is required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests. Our appraisal of the effect of the proposal on site integrity is as follows:

The proposal will result in the loss of 2.47 [sic] ha of blanket bog and wet heath within the SAC. This total includes the direct permanent loss and indirect permanent loss, due to habitat change, of NVC communities M15 and M17 and the mosaics containing these habitats.

This loss will result in long-term and irreversible impacts.

*On the basis of current information, and for the reasons given above, **it is unlikely that Scottish Government will be able to conclude that there will be no adverse effect on the integrity of the site.***

3.2 Flow Country World Heritage Site (WHS)

The proposal is almost entirely within the Flow Country WHS, protected for its globally important blanket bog ecosystem.

*Our advice is that the proposal will significantly impact the Outstanding Universal Value (OUV) of the WHS. **These impacts to blanket bog habitat cannot be mitigated and we therefore object to this proposal.***

Our appraisal of the impacts of the proposal on the OUV is as follows:

***The proposal will result in a loss in extent of blanket bog habitat.** The EIAR states the proposal will result in the loss of 2.47 ha [sic] of blanket bog habitat within the WHS. This total includes direct and indirect loss of NVC community M17 and the mosaics containing this habitat. This loss will negatively affect the extent and function of the blanket bog in this part of the WHS, with impacts being long-term and irreversible.*

***The proposal will result in the permanent loss of Sphagnum cover** (and other peat forming species) as a result of construction, which will reduce the habitat's ability to actively sequester carbon. This loss will negatively affect the function of blanket bog in this part of the WHS, with impacts being long-term and irreversible.*

***Construction works could also affect watercourses within the WHS.** However, we consider these works can be suitably mitigated to maintain good water quality through the implementation of standard good practice construction methods and appropriate pollution prevention measures."*

The Highland Council

"The application does not accord with the provisions of Section 36 [sic] of the Electricity Act 1989 by virtue of not demonstrating sufficient regard to the desirability of, and failing to

reasonably mitigate effects detrimental to, preserving flora and physiographical features of special interest by virtue of failing to demonstrate compliance with NPF4 Policies: 7I) by virtue of not protecting or preserving the blanket bog peatland habitat Outstanding Universal Value of the Flow Country World Heritage Site; 4a) by virtue of its location within the Flow Country World Heritage Site whereby the development will have an unacceptable impact on the natural environment; 4b) by virtue of its location within the an Appropriate Assessment not being adequately addressed and therefore, Policy 11e) parts ii, vi, viii and ix by virtue of significant landscape and visual effects, significant impacts on road traffic and on adjacent trunk roads during construction, and not satisfactorily demonstrating that effects on hydrology, the water environment and flood risk, as well as biodiversity including impacts on birds have been adequately addressed. Consequently, the proposal is contrary to the provisions of the Highland-wide Local Development Plan policies 28, 55, 56, 57, 58, 59, 60, 61, and 67, and associated Supplementary Guidance.”

1.6 Report Aims

- 1.6.1 This report seeks to provide further information with regards to the potential effects of the Proposed Development to the Caithness and Sutherland Peatlands SAC, Ramsar site and Flow Country WHS in response to the concerns raised by NatureScot and The Highland Council in their above objections. The report details the additional work completed through April 2025 to assess the condition and functionality of the peatlands present in the area of the Proposed Development. This information is considered in the overall assessment of the potential effects to the designated sites, their qualifying interests and conservation objectives.

2 PREVIOUS ASSESSMENTS

2.1 Habitat Regulation Appraisal

- 2.1.1 The HRA framework process is set out in Section 2 of Appendix 7.6 within Volume 4 of the EIA Report. This is included in **Appendix A** of this document for reference. Similarly, a summary of the habitat surveys completed for the Proposed Development were included in Appendix 7.6 of the EIA Report. This information is not repeated in this document; however, **Figure 3** provides an overview of the habitats present and shows these to be dominated by those typical of the wider landscape, namely acid grasslands, dry and wet heaths and bog communities, with occasional areas of fen, swamp and marsh.
- 2.1.2 An assessment of potential Likely Significant Effects (LSE) to qualifying interests of the Caithness and Sutherland Peatland SAC and Ramar site was completed. LSE were identified affecting the following qualifying interests:
- Blanket Bog;
 - Northern Atlantic wet heaths with *Erica tetralix*;
 - Nationally rare mosses *Sphagnum lindbergii* and *Sphagnum majus*;
 - Invertebrate assemblage including *Oreodytes alpinus*; and
 - Otters.
- 2.1.3 Following the identification of LSE to the above qualifying interests, an Appropriate Assessment was completed. This reviewed the potential impacts as well as the mitigation measures that might be implemented to remove or reduce the impacts to a level where there would be no LSE to the qualifying interests of the SAC, and therefore the conservation interest of the designated sites would not be affected. These included:
- Pre-construction and construction measures including but not limited to:
 - Implementation and compliance with Environmental Management Plans;
 - Pre-construction surveys;
 - Micrositing of infrastructure to avoid areas of high sensitivity;
 - Consideration of construction access to avoid areas of high sensitivity;
 - Reinstatement of habitats post construction to reduce the overall footprint of the Proposed Development;
 - The presence of an ECoW through the construction phase to monitor and advise on compliance of relevant management plans and aid with general environmental best practice.
- 2.1.4 The commitment to a landscape scale Habitat Management Plan is also made to provide enhancement over and above the predicted impacts of the Proposed Development, and those of the surrounding Connagill Cluster. This was not required as mitigation for the Appropriate Assessment.

2.2 In-Combination Effects

- 2.2.1 Except for Strathy South Wind Farm and the associated underground cable (UGC), the wind farms at Strathy Wood (consented), Melvich Wind Energy Hub (proposed), and Kirkton Energy Park (proposed) avoid both direct and indirect impacts on the Caithness and Sutherland Peatlands SAC and Ramsar sites. Therefore, significant in-combination effects for these projects with the Proposed Development were screened out at Stage 1.
- 2.2.2 Further consideration of the in-combination effects has been undertaken for the Strathy South Wind Farm Grid Connection (a section 37 application was submitted to ECU in February 2025), as

part of the Connagill Cluster, which passes through the Caithness and Sutherland Peatlands SAC and Ramsar sites. This assessment allowed for consideration of the detailed design of the Strathy South Wind Farm Grid Connection, which could not be included in the Proposed Development submission in 2024.

- 2.2.3 The assessments completed for both the Proposed Alignment and Alternative Alignment of the Strathy South Wind Farm Grid Connection found that the effects on habitats within the SAC / Ramsar were 0.162 ha to peatland habitats. This limited effect to the designated site is due to one tower and a small area of permanent access track falling within the boundary of the SAC / Ramsar site. All other infrastructure has been designed to be located outwith the designated site boundary.
- 2.2.4 Further consideration was also given to the condition of the affected habitats. These were found to be in poor condition and affected by long-term overgrazing, burning, and peat cutting, which removed their ability to support high water tables or peat-forming vegetation. Therefore, these habitats were considered not to form vegetation communities classified as primary features for the designation of the Caithness and Sutherland Peatland SAC / Ramsar, albeit still required consideration.
- 2.2.5 The assessments included in the Strathy South Wind Farm Grid Connection EIA Report (February 2025) confirmed the findings of the Proposed Development's assessment, that there would be no in-combination effects on the qualifying interests of the Caithness and Sutherland Peatland SAC / Ramsar sites and therefore **no adverse effect on site integrity**.
- 2.2.6 In addition, appropriate enhancement measures are proposed through the development of a landscape-scale Habitat Management Plan to address cumulative peatland habitat losses arising from the construction and operation of the wider Connagill Cluster Grid Connections and to deliver habitat enhancements that complement the conservation objectives for habitats and protected species within the Caithness and Sutherland Peatlands SAC / Ramsar.

2.3 Conclusions

- 2.3.1 The HRA assessment concluded that the construction and operation of the Proposed Development would result in **no adverse effect on integrity** on the Caithness and Sutherland Peatlands SAC / Ramsar sites, either alone or in-combination with any other project within the Connagill Cluster Grid Connection or associated wind farm developments. This is largely because the Proposed Development alone affects only a very small area of habitat within the SAC / Ramsar boundary, and therefore there is limited potential for any significant in-combination effects to arise alongside construction and operation of other wind farms and their associated grid connections that are part of the Connagill Cluster.

2.4 World Heritage Site Assessment

- 2.4.1 Appendix 7.7 within Volume 4 of the EIA Report considered potential effects to the Outstanding Universal Value (OUV) attributes of the Flow Country WHS. In relation to natural heritage these were identified as:
- Criterion (ix) – The Flow Country is the most extensive and diverse example of an actively accumulating blanket bog landscape found globally
- 2.4.2 All attributes of Criterion ix were assessed within the EIA Report of the Proposed Development. Only attribute “a”: *most extensive near continuous example of natural, actively accumulating, blanket bog ecosystem found globally*, was found to be affected by construction and operation of the Proposed Development. No effects were identified to attributes “b – f”.

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- 2.4.3 The assessment of potential effects to the OUV followed the Toolbox¹ approach as requested by THC along with drawing on the assessor's experience of the HRA and EclA process. The THC Toolbox summarises the assessment guidance for impacts to WHS as provided by UNESCO which itself recommends that unless it can be clearly shown that proposed actions will not affect the WHS and its OUV, an impact assessment must be carried out.
- 2.4.4 Given the guidance from THC surrounding the methodology for assessing and reporting on potential effects to WHS OUVs, the use of the Toolbox was considered a robust approach. Further to this, it was agreed with NatureScot during pre-application consultation in June 2024, that the process should mirror that used in the HRA process given the similarities in approach and receptors associated with both the WHS and SAC. As such, the assessment considered the embedded mitigation implemented during the design process of the Proposed Development, coupled to the measures proposed and committed to during the construction and operational phases. These sought to provide mitigation to the potential effects of the development to the OUV. Further to the proposed mitigation, significant enhancement is proposed in the form of a landscape scale Habitat Management Plan for the suite of Connagill Cluster developments, restoring peatland habitats with the WHS to improve the condition and extent of the OUV.
- 2.4.5 The assessment submitted for the Proposed Development's section 37 submission used the Version 1 Toolbox which required both Criterion ix and x to be considered. The WHS was inscribed for Criterion ix only, and as such only this parameter is considered further in this document.
- 2.4.6 Table 1 of Appendix 7.7 of the EIA Report details the WHS assessment completed. This is provided in **Appendix B** of this document for reference.

Conclusions

- 2.4.7 In summary, the assessment found Minor Adverse Effects (not significant) to the following ecology OUVs:
- Criterion (ix) outstanding example representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals:
 - a) most extensive near continuous example of natural, actively accumulating, blanket bog ecosystem found globally
- 2.4.8 The assessment, which was undertaken in accordance with guidance in THC's Flow Country World Heritage Site Impact Assessment Toolkit, concluded that there would be no significant adverse effects as a result of the Proposed Development on the OUV of the WHS either alone or in-combination with any other wind farm project or their associated grid connection in the wider Strathy area, which includes the Connagill Cluster Grid Connections.

¹ [Flow Country | Flow Country World Heritage Site Impact Assessment Toolkit Version 2](#)

3 ADDITIONAL EVIDENCE

3.1 Background

- 3.1.1 A detailed assessment of the potential effects of the Proposed Development on designated sites in the surrounding area, was included in the EIA Report submitted in support of the section 37 application, specifically in Appendix 7.6: Habitat Regulation Appraisal and Appendix 7.7: World Heritage Site Assessment, as summarised in Section 2 of this document.
- 3.1.2 NatureScot has determined in their consultation response (NatureScot reference: CDM178204), that the Proposed Development would adversely affect the integrity of the Caithness and Sutherland Peatlands SAC and that impacts on blanket bog habitats (an OUV of the World Heritage Site) cannot be mitigated.
- 3.1.3 To assist NatureScot in further evaluating the impacts of the Proposed Development on sensitive peatland habitats — specifically blanket bog and wet heathland with cross-leaved heath, as well as the potential permanent loss of Sphagnum coverage which are qualifying interests of the SAC and the OUV of the WHS — additional fieldwork was conducted in March and April 2025 to assess the condition of these habitats along the length of the Proposed Development.
- 3.1.4 Understanding peatlands through its condition, and likely longevity, is key to making a pragmatic decision on whether future enhancement would restore it to being in favourable condition. It should be noted that the condition of the SAC qualifying interests is currently unfavourable².

3.2 Survey Methodology

- 3.2.1 SLR Consulting Ltd (SLR) completed a detailed Peatland Condition Assessment (PCA) to evaluate the condition of peatland habitats that may be affected by the Proposed Development³. The survey aimed to outline the baseline conditions present in the area of the Proposed Development, identify areas of active peatland, and ensure that disturbance to these areas is minimised where technically feasible during the detailed design and construction phases. The PCA followed best practice guidance.
- 3.2.2 The PCA included the following data collection activities:
- Mapping key peatland condition metrics derived from open-access satellite imagery, including the distribution and cover of bare peat, non-peat habitats, and mineral soil; the distribution of drainage (both natural and artificial); erosion features (such as footpaths, hags, gullies, drained pools, and peat landslip scars); and land-use patterns (including burn scars, tracks, and livestock pens). This also included identifying main drainage pathways off-site;
 - Combining peatland condition metrics with contextual data regarding the management of the Proposed Development, including ecological and peat depth data gathered from the area of the Proposed Development and external resources (such as deer management group data);
 - Conducting a field-based peatland condition assessment to validate and provide further information on peatland condition across the area of the Proposed Development within a 100 m grid.
- 3.2.3 The data collected was used to produce a conceptual model derived from the PCA, to guide and demonstrate:
- How peatland condition is distributed across the Proposed Development, address the likelihood of extensive 'active' or near-natural peatland being present, and identify areas of particularly good condition peatland.

² Caithness and Sutherland Peatlands SAC [conservation-advice-package.pdf](#) (accessed 06.05.25)

³ SLR Consulting Ltd (2025) Strathly Wood Wind Farm Grid Connection Additional Information; Peatland Condition Assessment

-
- How, through site investigation and iterative design, the Proposed Development has been structured and designed to avoid, as far as reasonably practicable, areas of active peatland.

3.3 Survey Findings

Peatland Classification

- 3.3.1 The Carbon and Peatland Map 2016⁴ from NatureScot indicates that approximately 460 m and 1.7 km of the proposed OHL is located within areas of Class 1 and Class 2 peatland, respectively. Class 1 peat is mapped in the northern extents of the Proposed Development, at proposed Towers 18 and 19, and in localised areas to the south. Class 2 peat is extensive along the Proposed Development route, with areas mapped in the northern extents and from Towers 5 to 14. Class 1 and Class 2 peatlands are nationally important carbon-rich soils, deep peat, and priority peatland habitats with high conservation and restoration value.
- 3.3.2 The remainder of the Proposed Development is mapped as Class 3 and Class 5 peat. Areas of Class 3 peat are situated across the western extents of the Proposed Development from Towers 8 to 16, while Class 5 peat is predominantly mapped in the southern extents and localised areas to the north. Class 3 peatland is not considered a priority peatland habitat; however, most soils are carbon-rich, and areas of deep peat may be present. Class 5 peatland indicates no peatland habitat, but soils are carbon-rich, and deep peat may also be present.
- 3.3.3 Peat and peat soils surrounding the Proposed Development have been intensively used over the past century, with plantation forestry to the west of the proposed grid connection and sheep grazing, hill drainage, and peat cutting to the east. Additionally, the eastern part of the Proposed Development experienced significant peat loss due to the 2019 Flow Country wildfire.

Peat Depths

- 3.3.4 Peat probing of the area of the Proposed Development has been completed, with a total of 3,129 probes captured. Peat covers approximately 35% of the area considered within the Proposed Development. Peat in the Proposed Development is dominated by peaty and non-peaty soils less than 0.5 m deep (57.7%), followed by peat less than 1 m deep (23.2%), together accounting for almost 81% of probe points. Deep peat generally concentrates in areas of forestry, windthrow, and felled forestry within the Strathy North Wind Farm and in the northern part of the Proposed Development, west of the access track. Elsewhere, peat is highly fragmented and geologically constrained within hollows of the post-glacial landscape, characterised by small sub-basins constrained to the west by the existing road and to the east by north-south trending topographic highs and steep slopes with frequent rock outcrops, which further limit peat formation. Peat depth has also reduced in these areas due to historic peat cutting and burning from the 2019 Flow Country wildfire.

Peat Condition

- 3.3.5 Based on interpretations from probing and peat core samples, the peat in the Proposed Development is predominantly fibrous to pseudo-fibrous. Shallow peat deposits are generally fibrous, while deeper peat deposits are typically characterised as pseudo-fibrous, with rare amorphous peat encountered at depth.
- 3.3.6 Field descriptions at auguring points classify most shallow peat as between H2 and H6 in the von Post classification, indicating insignificant to moderate decomposition and highlighting areas of enhanced surface degradation. Areas of deeper peat were classified as H7 and H8. This classification aligns with the highly modified nature and intensive land management practices found on peatlands within the Proposed Development.
- 3.3.7 The patchy nature of peat across the Proposed Development reflects areas of peat cutting, which have often led to the loss of peat down to the underlying mineral soil. Elsewhere, elevated and

⁴ [Map | Scotland's environment web](#) (accessed 05.05.2025)

isolated peat banks have desiccated and become colonised by dry heath species. While these areas retain greater peat depth, they have reduced resilience to wildfire, with extensive charring and peat loss observed. In many places within the Proposed Development, compaction and subsidence have caused significant peat loss, leading to the replacement of peat with dry heath vegetation and thin organic-rich soils. Exposed boulders clearly show acid erosion above the current peat surface, evidencing extensive peat loss from the Proposed Development due to peat cutting, erosion, grazing, and drainage. This process appears particularly concentrated in the central areas of the Proposed Development within the Flow Country WHS. The Proposed Development lies almost entirely within the drainage influence of the existing access track to Strathy Wood and Strathy South, with multiple drainage lines present.

- 3.3.8 Overall, the heterogeneous nature of peat depth across the Proposed Development indicates a highly modified and disturbed landscape that retains only small, altered fragments of the original peat bodies that once colonised the area. This reflects a loss of ecosystem services, including the impairment of the peatland's ability to sequester and permanently store carbon.

Ecological Indicators

- 3.3.9 A key component of an active peatland is the species present, with the presence or absence and cover of different plant functional types indicating the degree to which the peatland is modified from near-natural conditions. The extent of plant functional types, such as *Sphagnum*, often serves as a good proxy for the height of the water table and, therefore, the extent to which the peatland remains functional (e.g., still sequestering carbon and providing key ecosystem services). In contrast, negative indicators such as bare peat, heather, and purple moor grass, which are not peatland mosses, reflect the degree of modification in the peatland.
- 3.3.10 The assessment of *Sphagnum* cover and vegetation types within the Proposed Development area reveals significant findings:
1. **Sphagnum Cover:** *Sphagnum* was generally absent or rare between Towers 1 and 17, primarily consisting of isolated pockets of *Sphagnum capillifolium*. The only notable abundance was near the access track leading to Tower 19, where higher water tables supported *Sphagnum papillosum*. Overall, *Sphagnum* is largely replaced by non-peat-forming species, such as Feather Mosses, indicating a shift in habitat conditions.
 2. **Sedge and Grass Cover:** *Molinia caerulea* dominates the area between Towers 5 and 12, with only occasional occurrences of common peatland species like cotton grasses and Deer Grass. Although *Molinia* decreases northwards, it remains abundant until Tower 17. Typical Flow Country sedge and grass assemblages appear around Towers 18 and 19. The prevalence of *Molinia* suggests prolonged disturbance from drainage, historic muirburn, and grazing, complicating restoration efforts.
 3. **Shrub Cover:** Common Heather (*Calluna vulgaris*) is locally abundant between Towers 12 and 19, co-dominant with *Molinia caerulea*. However, it is largely replaced by tall stands of Bog Myrtle (*Myrica gale*) between Towers 5 and 12, indicating a shift towards drier heath habitats. This dominance of vascular shrubs over *Sphagnum* species signifies a loss of peatland function and a transition to drought-tolerant alternatives.
 4. **Other Cover:** Bare peat is occasionally present, primarily due to the impacts of the 2019 Flow Country wildfire and historic grazing. Notable conifer regeneration and colonisation of open peat areas are observed, particularly near Towers 2 and 4 and Tower 18. Outcrop and scree are also visible between Towers 5 and 17.
- 3.3.11 Overall, the findings indicate significant ecological changes within the Proposed Development area, with a shift from peat-forming species to more drought-tolerant vegetation, reflecting ongoing disturbances and a loss of peatland function.

Peatland Morphology and Hydrology

- 3.3.12 The Proposed Development area largely lacks peatland microtopography, which has been replaced by dry high lawn communities or lost due to extensive grazing. The only partial microtopography is found near Tower 19 in a colonised peat cut, featuring isolated *Sphagnum* hummocks and lawns. This absence of microtopography suggests that the peatland is unlikely to

be active and lacks the diverse functions and water levels necessary to support biodiverse microhabitats typical of near-natural peatlands.

- 3.3.13 The site exhibits shallow erosion features dominated by gully systems and micro erosion, primarily in the form of vegetated and hagged gullies. These features are present in both remaining peatland and areas converted to dry heath or wet grassland. Active drainage systems, mainly associated with peat cutting and hill drainage, are widespread and appear generally active.
- 3.3.14 The area is generally dry due to extensive drainage and its natural position. Surveys conducted in late winter, when water levels are typically highest, indicate that water levels are suppressed compared to those in a near-natural peatland.
- 3.3.15 The Proposed Development exhibits hard or firm ground conditions, indicating high peat densities. This high density results from oxidation and compaction due to drainage and livestock pressures, reducing the peat's resilience to extreme weather events such as drought. The widespread presence of highly humified dense peats reflects a longstanding loss of peatland function, primarily due to historical drainage practices, peat cutting, agriculture, and plantation forestry.

Land-use Pressures

- 3.3.16 Evidence of sheep and deer grazing is prevalent, indicated by footprints, droppings, and sightings. Areas with higher sheep densities show a dominance of *Molinia* tussocks and grazed heather, which replace native peatland and heath species. Although sheep numbers may have decreased over time, their presence continues to negatively impact peatland conditions.
- 3.3.17 The area affected by a 2019 wildfire shows significant vegetation loss and charring. Recovery is slow, with juvenile heather dominating and minimal regrowth of key peatland species like *Sphagnum*. The peat has experienced deep burning, leading to a loss of over 5 cm in some areas, and the peat surface has become hydrophobic, hindering water infiltration and natural recovery. Vegetation in areas with higher water tables is still dominated by *Molinia caerulea* and heather, indicating a loss of surface biomass.
- 3.3.18 Non-native conifer species are encroaching on open peat areas near plantation forestry, which could negatively affect peatland functions through increased evaporation, shading, and nutrient alteration.

Infrastructure Assessment

- 3.3.19 **Appendix C** of this report provides Figure 9.4.3 of SLR (2025) Peatland Condition Assessment Report that further illustrates the poor condition of the peatland habitats present along the length of the Proposed Development. **Appendix D** summarises the infrastructure associated with the Proposed Development, the peat depth and condition present, and the likely impact of the Proposed Development on peatlands present. An assessment of key peatland condition metrics confirmed that only one infrastructure location of the Proposed Development (near the access track leading to Tower 19) was considered to have a moderate (potentially significant) impact on peatland habitats. This was due to the presence of *Sphagnum papillosum*, indicating that functioning peatland habitats may be present. This is supported by the fact that this location is the only one where representative peatland microtopography was identified during field surveys. All other locations were assessed as having low or negligible effects on peatland habitats due to the significant impacts previously caused by grazing and anthropogenic influences, or the absence of peat.
- 3.3.20 Further consideration has been given to the effects of the Proposed Development to habitats and the condition of these. The Proposed Development's EIA Report (2024) detailed that 2.49 ha of blanket bog habitat would be affected by the Proposed Development within the SAC / Ramsar sites. **Appendix E** details the NVC communities affected by the Proposed Development and the condition of these peatland habitats.
- 3.3.21 Please note that the effects on habitats reported in **Appendix E** (2.57 ha) are marginally greater than those in the Proposed Development's EIA Report (2024), which indicates an area of 2.49 ha. This discrepancy arises from the data collection method and GIS anomalies of using multiple datasets to assess the potential effects of the Proposed Development to vegetation communities and areas of differing peatland condition.

- 3.3.22 **Appendix E** presents additional information about the degraded nature of the habitats. It is considered that due to the degraded condition of these habitats, the hydrological effects of construction on peatland habitats, which partly contribute to the EIA Report's predicted area of 2.49 ha, are likely overestimated, as hydrological drawdown and effects on the water table and habitats have already occurred. Consequently, the likely effect would be lower than the predicted 2.49 ha. It should also be noted that no peatland habitats have been recorded where a predicted impact does not fall within a condition category that identifies an existing effect on the peatland habitat. This illustrates that all proposed infrastructure locations have been sited away from areas of high sensitivity and those forming qualifying habitats of the SAC / Ramsar sites.

Setting

- 3.3.23 Consideration has been given to the Setting of the Proposed Development in the context of the WHS, as requested by consultees in their response to the Proposed Development's section 37 submission. **Appendix B** of this document provides a summary of the assessment of the potential effects of the Proposed Development to Attributes of the WHS for context.
- 3.3.24 UNESCO guidance⁵ defines setting as:
- "the immediate and extended environment that is part of, or contributes to, its significance and distinctive character. It may relate to the property's topography [and] natural environment ... It may include related ecological and hydrological connectivity... [The wider setting] might also play an essential role in protecting the authenticity and integrity of the property, and its management is related in its role in supporting the OUV"*
- 3.3.25 As summarised in **Appendix B**, a pathway or effect was considered applicable to only Attribute A associated with Criterion ix for which the WHS is inscribed. In the context of Setting, this is therefore only applicable to this attribute:
- "a) most extensive near continuous example of natural, actively accumulating, blanket bog ecosystem found globally".*
- 3.3.26 It is considered that effects to the hydrological integrity of the blanket bog habitats through construction and operation of the Proposed Development would be the only pathway in which the Setting of the WHS might be affected. As discussed through the above sections, the hydrological integrity of the peatlands present have been detrimentally affected by historical and ongoing impacts including drainage, fire and over-grazing. It is determined that additional hydrological effects from the Proposed Development would be limited in their extent, and thus unlikely to affect the Setting of the WHS through wider adverse effects to the OUV.

3.4 Assessment Conclusions

- 3.4.1 Overall, the assessment highlights significant degradation of peatland conditions within the Proposed Development which is in contrast to the inscription of the Flow Country WHS for criterion ix:
- Criterion (ix) outstanding example representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals:
 - a) most extensive near continuous example of natural, actively accumulating, blanket bog ecosystem found globally

⁵ Court, S., Jo, E., Mackay, R., Murai, M., and Therivel, R. (2022) *Guidance and Toolkit for Impact Assessments in a World Heritage Context*. UNESCO, Paris, France. Available online [Accessed March 2025]: <https://whc.unesco.org/en/guidance-toolkit-impact-assessments/>

-
- 3.4.2 Each of the above parameters assessing the condition of the peatland at and around the Proposed Development site concludes that the peatland condition—determined by the peat itself, specific peat-forming species as ecological indicators, and drainage and land-use pressures from historical and ongoing grazing and browsing—is inconsistent with Criterion ix, which defines the best examples of peatland habitats. The physical properties of the peat currently prevent the active accumulation of peat and the ongoing formation of blanket bog habitats. Furthermore, the assessment of both infrastructure locations and peat condition note that all infrastructure locations are in areas of peat that does not meet the requirements of the description of Criterion ix, and therefore the attributes of the OUV would be unaffected by construction or operation of the Proposed Development.

4 CONCLUSIONS IN THE CONTEXT OF THE HABITAT REGULATION APPRAISAL AND THE WORLD HERITAGE SITE ASSESSMENT

4.1 Background

4.1.1 In their February 2025 consultation response to the Proposed Development's section 37 application, NatureScot raised an objection based on the view that the construction and operation of the Proposed Development would significantly affect the qualifying features of the Caithness and Sutherland Peatland SAC, thereby impacting the conservation objectives and overall integrity of the site. Furthermore, NatureScot considered that, in the context of the Flow Country WHS, the construction and operation of the Proposed Development would adversely affect blanket bog habitats and the OUV of the WHS, which could not be mitigated.

- **Caithness and Sutherland Peatlands SAC** – The loss of 2.49 ha of blanket bog and wet heath within the SAC would result in long-term and irreversible impacts.
- **Flow Country World Heritage Site (WHS)** – The proposal will significantly impact the OUV of the WHS. These impacts on blanket bog habitats cannot be mitigated.

4.2 Caithness and Sutherland Peatland SAC

4.2.1 Volume 4, Appendix 7.6: Shadow HRA for the Caithness and Sutherland Peatlands SAC and Ramsar of the EIA Report detailed the steps taken to assess the potential effects on the SAC. Stage one found that there were Likely Significant Effects to:

- Blanket Bog;
- Northern Atlantic wet heaths with *Erica tetralix*;
- Nationally rare mosses *Sphagnum lindbergii* and *Sphagnum majus*;
- Invertebrate assemblage including *Oreodytes alpinus*; and
- Otters.

4.2.2 It was further determined that, through the implementation of suitable management plans during the Appropriate Assessment Stage of the appraisal, there would be no significant effect on otters.

4.2.3 The information collected by SLR in their 2025 Peatland Condition Assessment Report, summarised in Section 3 of this document, strengthens the position of the previously submitted Shadow HRA included in the EIA Report. **Appendix D** identifies that of the 32 infrastructure locations assessed:

- Sphagnum was identified only in proximity to the access track leading to Tower 19;
- All locations consist of artificially drained peat where peat is present (**Appendix E**);
- Erosion features are present across the Proposed Development area; indeed, no location is unaffected by erosion features (**Appendix E**);
- *Molinia caerulea* dominates the vegetation sward of the Proposed Development area, indicating historical impacts that have halted the formation of any active peat.

4.2.4 Peat cores taken across the development indicate low von Post values, showing high degrees of compression in the peat present, with 81% of the peat identified as less than 0.5 m in depth.

4.2.5 Given the detailed assessment of the Proposed Development area, it is considered that the peatland habitats present are in poor condition and not actively forming peat or sequestering carbon. Due to the identified impacts, it is highly likely that the habitats present are net emitters of carbon dioxide to the atmosphere. Therefore, it is considered that the Proposed Development would not significantly impact the qualifying interests of the Caithness and Sutherland Peatlands SAC, as:

- Active blanket bog habitats have not been identified at the proposed infrastructure locations;
- Northern Atlantic wet heath habitats with *Erica tetralix* are not present at the infrastructure locations;
- Nationally rare mosses, *Sphagnum lindbergii* and *Sphagnum majus*, are not present at the infrastructure locations;
- Habitats supporting invertebrate assemblages, including *Oreodytes alpinus* (an aquatic invertebrate), are not present at the infrastructure locations.

4.2.6 It is therefore considered that the EclA completed for the Proposed Development, as set out in the EIA Report, has taken a conservative approach when identifying potential effects on 2.49 ha of blanket bog habitats, and based on the evidence provided in this report, the actual effect on qualifying habitats and their conservation objectives is likely to be imperceptible, particularly in the context of the overall SAC / Ramsar site boundaries, with all habitats identified as qualifying habitats to be affected by the construction and operation of the Proposed Development are in an unfavourable condition and affected by previous and ongoing landuse activities (as shown in **Appendix E**).

4.2.7 In conclusion, the evidence provided from the PCA supports the conclusions of the Shadow HRA submitted with the section 37 application for the Proposed Development that there would be no significant adverse effects on the qualifying features of the Caithness and Sutherland Peatlands SAC or its conservation objectives or site integrity.

4.2.8 Furthermore, the Habitat Management Plan proposed to support the Proposed Development and the wider Connagill Cluster would provide significant enhancement to peatland habitats beyond the conservatively estimated predicted impacts. This would provide a significant net benefit to peatland habitats, aid with improving the currently unfavourable condition of qualifying interests of the SAC / Ramsar, helping meet the overall conservation objectives of the designated sites.

4.3 Flow Country World Heritage Site

4.3.1 NatureScot identified that the predicted loss of 2.49 ha of blanket bog, as detailed in the Proposed Development's EIA Report, would negatively affect the extent and function of the blanket bog in this part of the Flow Country WHS, with long-term and irreversible impacts. Furthermore, the Proposed Development would result in the loss of *Sphagnum* (and other peat-forming species), which would further negatively affect the function of blanket bog habitats.

4.3.2 A detailed consideration of the peatland resource and its condition in the SLR (2025) Peatland Condition Assessment Report for the Proposed Development, summarised in Section 3 of this document, found that:

1. There is little or no functioning blanket bog habitat within the footprint of the Proposed Development. Only the area near the access track leading to Tower 19 has the potential to be actively peat-forming, as indicated by its microtopography; however, this area is also classified as artificially drained and is in proximity to historical peat cuttings, making it unlikely to be functioning.
2. Sphagnum mosses were found very sporadically across the Proposed Development area, primarily consisting of *Sphagnum capillifolium* (a non-peat-forming species), with only *Sphagnum papillosum* identified near the access track leading to Tower 19.

4.3.3 The Flow Country WHS is inscribed for Criterion ix:

- Criterion (ix) outstanding example representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals:
 - a) most extensive near continuous example of natural, actively accumulating, blanket bog ecosystem found globally

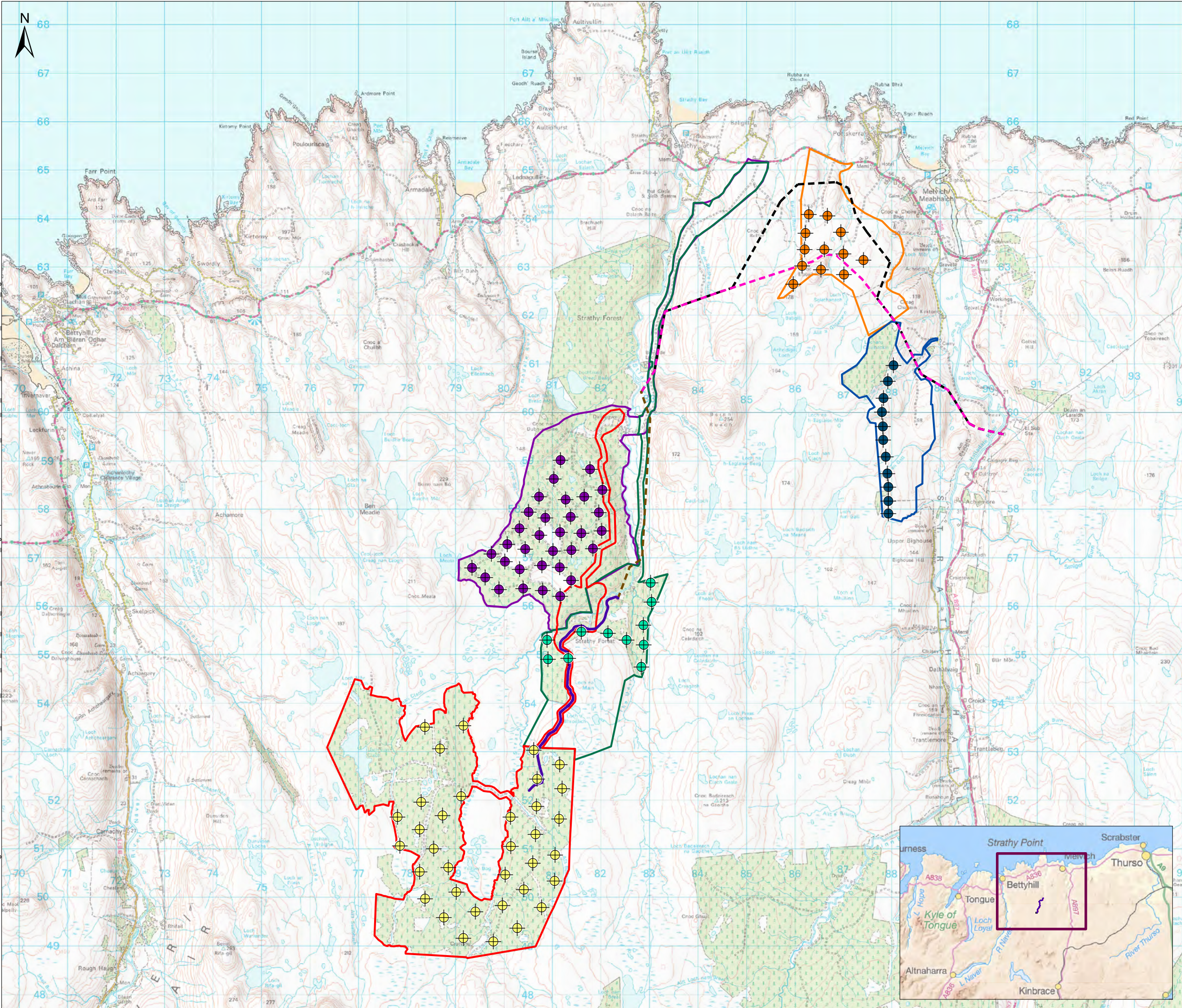
4.3.4 Considering the information provided in Section 3 of this report, and **Appendices D and E**, the area at and around the Proposed Development is highly modified. Although peat is present, it is

shallow, and the vegetation is not the type that forms peat. The area has been heavily degraded by grazing, browsing and fire, combined with significant drainage from historical activities. The condition of the peatland habitats (in line with the SAC status of unfavourable) was found to be poor. All locations were modified, drained or hagged, with gullies and active erosion noted. Furthermore, all infrastructure is located in areas of affected, poor-quality peatland.

- 4.3.5 The OUV for the WHS specifically states it is inscribed for the natural, actively accumulating blanket bog ecosystem. Detailed assessment shows the Proposed Development location does not meet this criterion. Based on information from earlier sections, construction or operation of the Proposed Development is unlikely to affect the function of blanket bog habitats in the WHS or the abundance of Sphagnum mosses, as conditions are too dry and surface wetness too limited for their colonisation. Similar to the assessment of the SAC qualifying features, the impact assessment in the EIA Report for the Proposed Development appears to have taken a very precautionary approach, and the effects on blanket bog habitats are likely to be significantly less than the stated 2.49 ha.
- 4.3.6 In conclusion, the evidence provided supports the conclusions of the WHS Assessment submitted with the EIA Report for the Proposed Development (see Volume 4, Appendix 7.7); there would be no adverse effects on the OUV of the WHS, even without mitigation. However, a Habitat Management Plan is proposed for the Connagill Cluster suite of developments, which would provide significant enhancement to blanket bog habitats beyond any predicted impacts, thereby offering a net benefit to the WHS and its OUV in the long term.

FIGURES

Document: W:\794-ENV-ECO-20456 Connagill Cluster\Technical\ECO20456_0043-02 LT230_SS UGC_HRA_Siteloc_WFDevs_Fig1.aprx ECO20456-0043-02 LT230_SS UGC_HRA_Siteloc_WFDevs_Fig1



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Legend

Proposed UGC Alignment

Site Boundaries

Kirkton

Melvich

Strathgairn South

Strathgairn Wood

Strathgairn North

Strathgairn Wood (LT559) Alignment

Proposed OHL

Strathgairn South (LT560) Alignments

Proposed OHL

Alternative OHL

Turbine Layouts

Kirkton

Melvich

Strathgairn South

Strathgairn Wood

Strathgairn North

Rev	Description	By	CB	Date
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Client SSEN

Project LT559 Strathgairn Wood Wind Farm Grid Connection

Title Site Location and Surrounding Developments

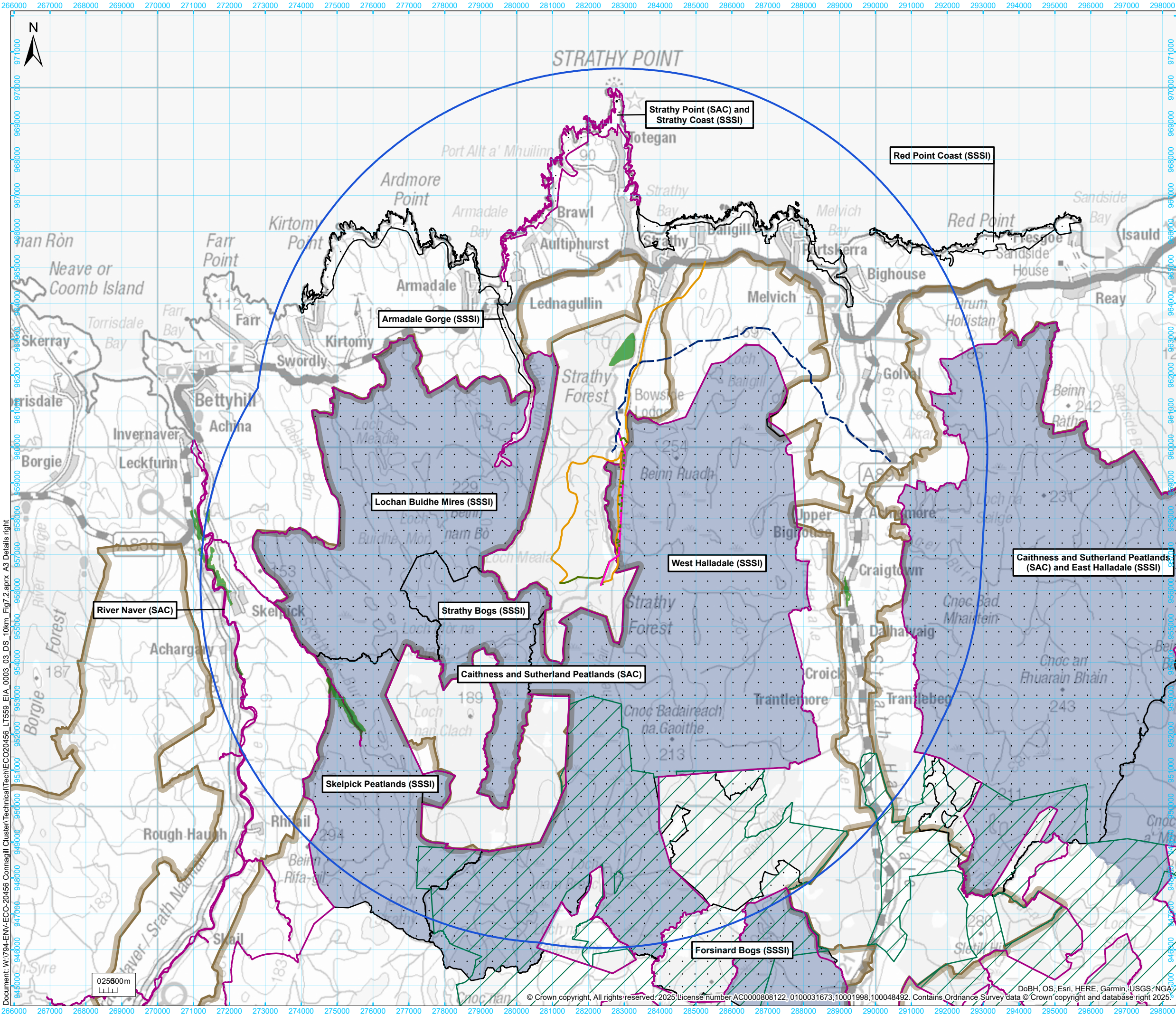
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Legend

- Proposed OHL Alignment
- Existing 132 kV OHL (Wood Pole)
- New Permanent Access Track
- Existing Access Track
- New Temporary Access Track
- 10km Desk Study Area
- Ecological Designated Sites within 10km
- Source: The Highland Council, NatureScot
- Flow Country UNESCO World Heritage Site
- Caithness and Sutherland Peatlands Ramsar
- Ancient Woodland (AW)
- Special Area of Conservation (SAC) - Labelled
- Forsinard Flows National Nature Reserve (NNR)
- Site of Special Scientific Interest (SSSI) - Labelled

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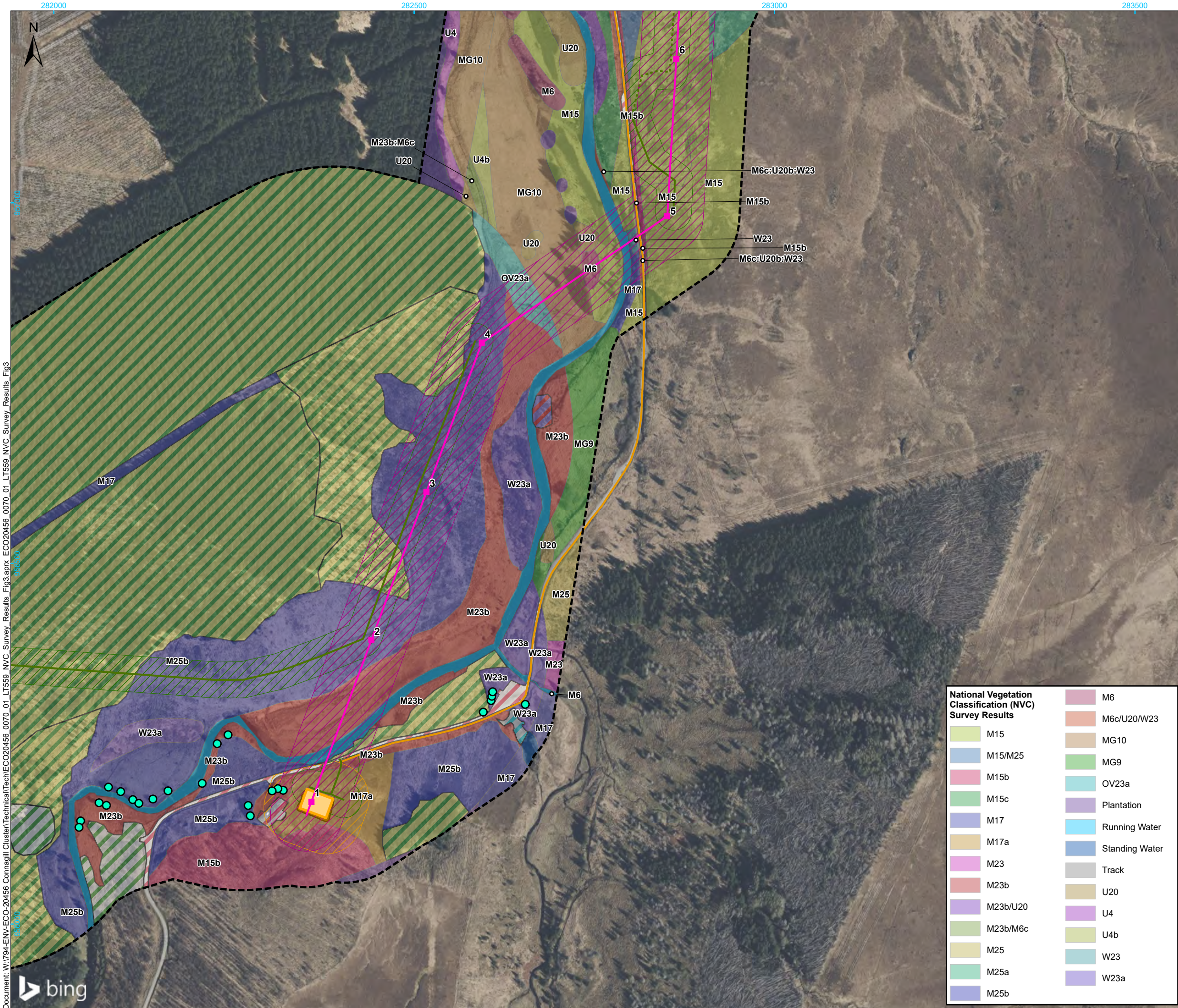
Client SSEN

Project LT559 Strathgairn Wood Wind Farm Grid Connection

Title Proposed Development and Surrounding Designated Sites

Status Final	Drawn By OW	PM/Checked By SL
Project Number ECO20456	Scale @ A3 1:100,000	Date Created 07/05/25
Figure Number 2		Rev -

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Legend

- Proposed Steel Lattice Tower
- Proposed OHL Alignment
- New Permanent Access Track
- Existing Access Track
- New Temporary Access Track
- Limit of Deviation (OHL)
- Limit of Deviation (Access Track)
- Proposed Sealing End Compound
- CSE Compound Earthworks
- Limit of Deviation (CSE Compound)
- Habitats Survey Area
- 32 - Woodlands and Trees Essentials: Scattered Trees

UK Habitat Classification Survey Results (NVC Not Assessed)

- UKHab: h3
- UKHab: r1
- UKHab: u1
- UKHab: w1
- UKHab: w2

Rev	Description	By	CB	Date

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Client **SSEN**

Project **LT559 Strathy Wood Wind Farm Grid Connection**

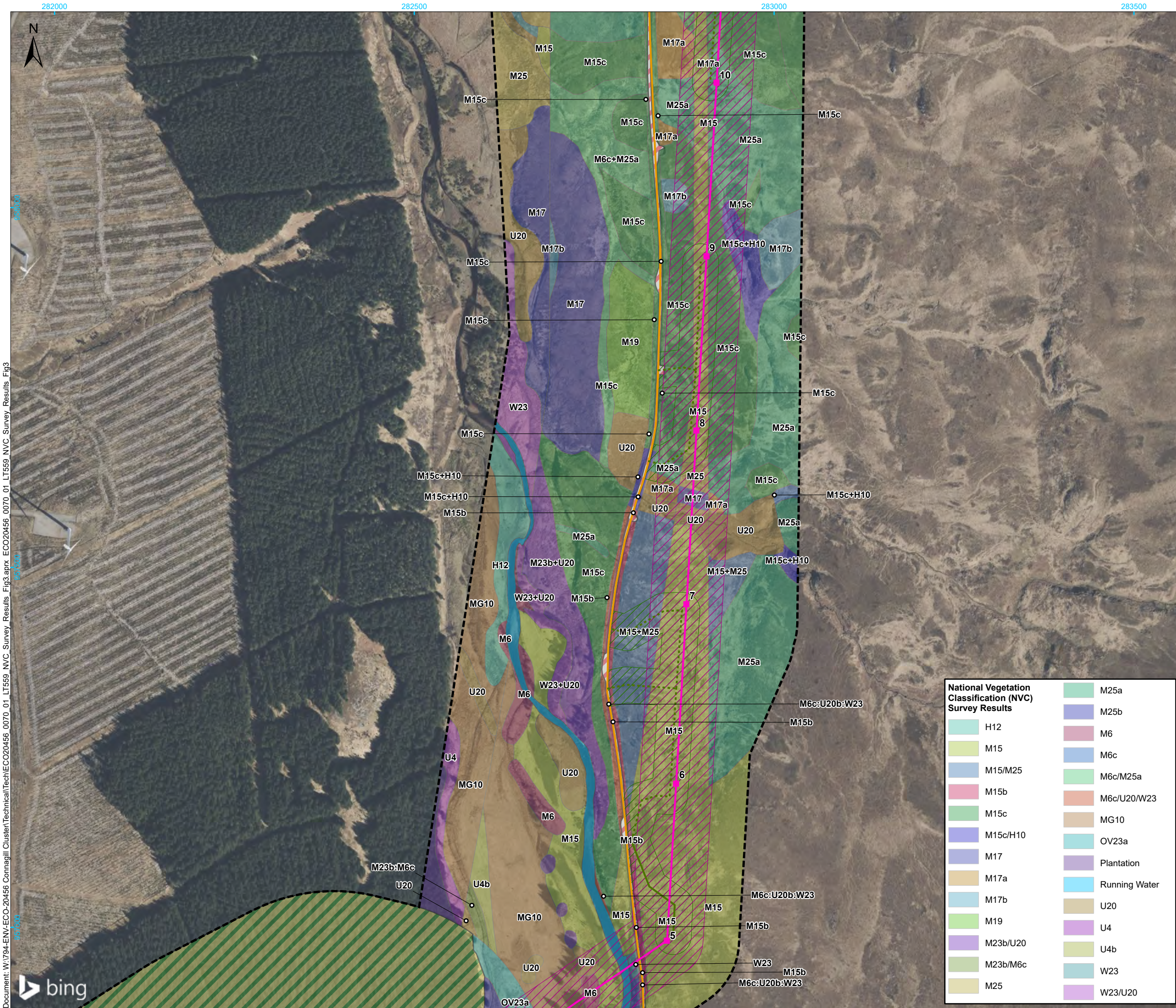
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Status	Drawn By	PM/Checked By
Issue	LM	SL
Project Number	Scale @ A3	Date Created
ECO20456	1:5,000	25/06/25
Figure Number		Rev
3b		01

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National Vegetation Classification (NVC) Survey Results

M15	M6
M15/M25	M6c/U20/W23
M15b	MG10
M15c	MG9
M17	OV23a
M17a	Plantation
M23	Running Water
M23b	Standing Water
M23b/U20	Track
M23b/M6c	U20
M25	U4
M25a	U4b
M25b	W23
	W23a



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- Legend**
- Proposed Steel Lattice Tower
 - Proposed OHL Alignment
 - New Permanent Access Track
 - Existing Access Track
 - New Temporary Access Track
 - Limit of Deviation (OHL)
 - Limit of Deviation (Access Track)
 - Habitats Survey Area
- UK Habitat Classification Survey Results (NVC Not Assessed)**
- UKHab: u1
 - UKHab: w2

Rev	Description	By	CB	Date



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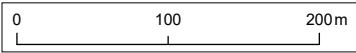
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Client	SSEN
Project	LT559 Strathy Wood Wind Farm Grid Connection
Title	Habitat Survey Results

Status	Drawn By	PM/Checked By
Issue	LM	SL
Project Number	Scale @ A3	Date Created
ECO20456	1:5,000	25/06/25
Figure Number		Rev
3c		01

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National Vegetation Classification (NVC) Survey Results	
H12	M25a
M15	M25b
M15/M25	M6
M15b	M6c
M15c	M6c/M25a
M15c/H10	M6c/U20/W23
M17	MG10
M17a	OV23a
M17b	Plantation
M19	Running Water
M23b/U20	U20
M23b/M6c	U4
M25	U4b
	W23
	W23/U20



APPENDICES

Habitat Regulation Appraisal Framework

Context

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora ('the Habitats Directive'), provides legal protection for habitats and species of European importance. Articles 3 to 9 provide the legislative means to protect habitats and species through the establishment and conservation of a network of European sites. These are sites hosting rare and vulnerable habitats and species. This network is designed to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. The current Caithness and Sutherland Peatlands SAC is current in an unfavourable condition for the majority of its qualifying interests.

European sites comprise Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Wild Birds Directive. Ramsar sites are also considered as part of the appropriate assessment.

The procedures that must be followed when considering developments on European sites are set out in Article 6 of the Habitats Directive. In Scotland, this process is implemented through the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) ('The Habitats Regulations').

Habitats Directive Article 6(3) sets out the decision-making tests for plans and projects likely to have a significant effect on or to adversely affect the integrity of European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

"Any plan or project not directly connected with or necessary to the management of the [European] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Overview of the HRA Process

Having ascertained that a proposed development is not connected with the management of any European site, the HRA process comprises four main stages:

- **Stage 1 – Screening:** the first stage of the HRA process involves considering whether the plan or project will have a 'Likely Significant Effect' (LSE) on the European site in question, either alone, or in combination with other plans or projects. If the Screening process concludes that no LSE on the European site will occur, then the project may be authorised. Otherwise, Stage 2 – 'Appropriate Assessment' (AA) would be required.
- **Stage 2 – AA:** where it is determined that an LSE is possible, the competent authority must carry out an AA to assess the implications of the plan or project in respect of the conservation objectives of the European site in question. This should enable the competent authority to determine whether or not the plan or project would adversely affect the integrity of the European site. If it can be ascertained beyond reasonable scientific doubt that the plan or project would not adversely affect the integrity of the European site, then it can be authorised. If not, Stages 3 and 4 would apply.
- **Stage 3 – Alternative Solutions:** where it is determined that the plan or project would have an adverse effect on the integrity of a European site (or that there is uncertainty and a precautionary approach is taken), alternative solutions which would deliver the plan or project objective(s) need to be considered. If there are no alternatives that do not affect the integrity of the European site, Stage 4 applies.
- **Stage 4 – Imperative Reasons of Overriding Public Interest (IROPI):** where a plan or project adversely affects the integrity of a European site there are no alternative solutions, it may only proceed for imperative reasons of overriding public interest, subject to compensatory measures being secured.

Mitigation by Design and Embedded Mitigation

The ruling of The Court of Justice of the European Union (CJEU) in the matter of *People Over Wind and Sweetman v Coillte Teoranta* (EU Case Law, 2018) effectively determined that the screening stage of the HRA must be completed in the absence of proposed mitigation. However, it is recognised that the above ruling permits scope within the Screening stage to consider essential elements of a plan or project that are not primarily concerned with avoiding impacts to European sites.

Appendix B

Summary of WHS Assessment from Appendix 7.7 of the Proposed Development's EIA Report (2024)

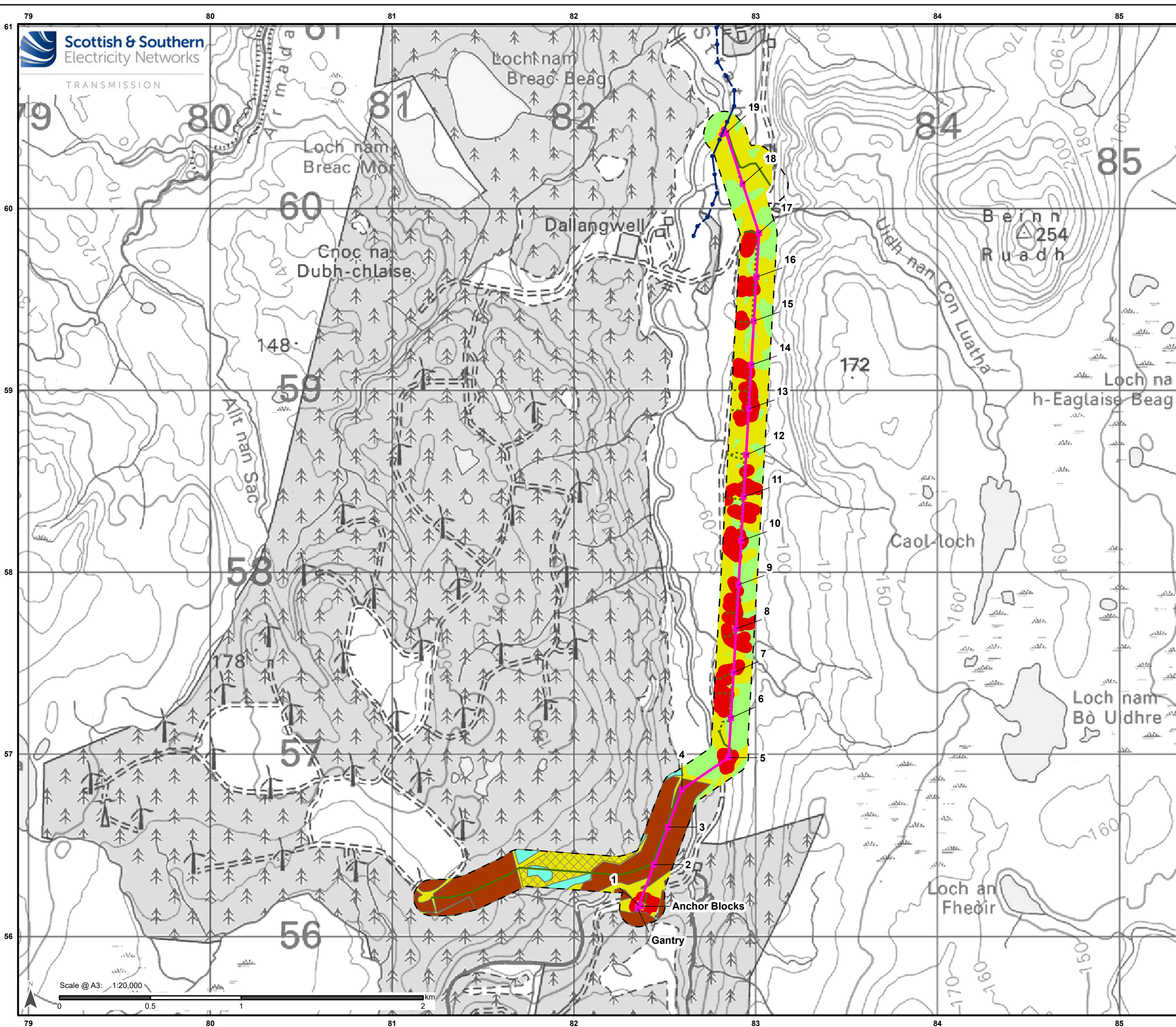
Attribute	Description	Comment	Signposting to Relevant Baseline Data & Impact Assessment in EIA Report	Assessment of Effects
Criterion (ix) outstanding example representing significant ongoing ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.				
a) most extensive near continuous example of natural, actively accumulating, blanket bog ecosystem found globally	Persistent rain fed wetness and low rates of evaporation across The Flow Country lead to widespread, year round waterlogged ground conditions which are ideal for the growth and preservation of peat forming plants. This ongoing process (paludification) began around 9,000 years ago and is key in the formation of blanket bog. Unlike other bog types, which are confined by topography, this allows blanket bog to mantle entire landscapes. The Flow Country is one of only a few locations globally where conditions exist that are conducive to blanket bog formation, and combines a quality, extent and connectivity of this habitat exceeding that of any other known blanket bog.	<p>The Proposed Development would result in very minor losses of habitat relative to that within the whole Flow Country WHS, which covers c. 200,000 ha. Total direct and indirect losses of habitat are calculated at 8.19 ha, which represents 0.0044% of the total area of land within the WHS.</p> <p>The EclA concluded that the Proposed Development would result in a minor adverse effect (not significant) on the important peatland habitats, including those within the Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI (which are also within the WHS boundary).</p> <p>The HRA for the Proposed Development concluded that there would be no adverse effects on the integrity of the Caithness and Sutherland Peatlands SAC / Ramsar, as a result of direct and indirect impacts on blanket bog (an Annex I habitat of international importance and primary reason for the selection of the site as an SAC).</p> <p>This assessment is similarly applicable to the assessment of impacts on the blanket bog ecosystem OUV.</p>	<p>Assessment of Likely Significant Effects (see Chapter 7; Ecology, Section 7.10)</p> <p>Shadow HRA for Caithness and Sutherland Peatlands SAC / Ramsar (see Appendix 7.6)</p>	Minor adverse effect (not significant)
b) climatic, topographic gradients and	The scale of the nominated property, alongside the gradients in climate and topography, and the diversity of the	There are no pathways by which the Proposed Development could affect the climatic, topographic	N/A	No effect

Attribute	Description	Comment	Signposting to Relevant Baseline Data & Impact Assessment in EIA Report	Assessment of Effects
geological diversity: bog macroform diversity	underlying geology, provide the setting for subtle variations in processes which result in a huge diversity in the character of the blanket bog. These factors control the development of complex systems of hummocks, moss lawns, hollows and pools, and the associated plant species, which produce surface patterning that has been classified into 15 site-types. No other blanket bog in the world contains such a diverse collection of surface patterning within a single area.	gradients or geological diversity that support bog macroform diversity.		
c) archive it stores (4th dimension)	Delving deeper, the peat, which has been forming for over 9,000 years, reaches thicknesses of over 8 m, providing an exceptional archive and providing a 4 th dimension to The Flow Country blanket bog. The processes responsible for the development of the blanket bog system and the ecosystems it supported can be scrutinised back through time across the vast area it covers using pollen records; plant sub-fossils (e.g. hazelnuts, pine cones, pine stumps); lake sediment records (midge and diatom (alga) remains); tephra (ash) layers blown south from Icelandic volcanoes; charcoal (indicating in situ burning).	There are no pathways by which the Proposed Development could affect the historic archive stored in the peat; any excavations for the foundations of the towers and poles, and the new (permanent and temporary) access tracks, would be of minimal depth and affect only a very small proportion of the habitats present.	N/A	No effect
d) natural laboratory – ongoing scientific and educational use	The exceptional nature of The Flow Country makes it the 'type site' for blanket bog study and it continues to be used as a 'test bed' for peatland research globally. The diversity of features related to altitudinal and climatic gradients across the region and the depth of archive provides a huge scope for research. Furthermore, the breadth of existing studies provides a fantastic foundation for future research.	There are no pathways by which the Proposed Development could affect the ongoing scientific and educational use of the WHS.	N/A	No effect

Attribute	Description	Comment	Signposting to Relevant Baseline Data & Impact Assessment in EIA Report	Assessment of Effects
e) carbon sequestration and storage	Globally peatlands are the largest natural terrestrial carbon store. Covering only 3% of the world's land area, they hold nearly 30% of all the carbon stored on land. In blanket bog, year-round waterlogged conditions slow the process of plant decomposition such that the dead plants accumulate to form peat, and thereby sequester carbon from the atmosphere. Over thousands of years this plant material builds up and becomes several metres thick producing a valuable carbon store. The Flow Country provides a superb example of ongoing sequestration, alongside carbon storage demonstrated by peat thicknesses which reach over 8 meters.	Given the minimal permanent impact of the Proposed Development on blanket bog, it is reasonable to assume that there would be no impacts on the ability of the Flow Country to continue to sequester and store carbon.	N/A	No effect
f) water filtration and the impact on the water quality of associated riverine habitats	The catchments draining The Flow Country sustain exceptional water quality, resulting from the natural filtration of rainwater as it slowly seeps through these vast peatlands. The superb water quality is critically important in sustaining globally important populations of the freshwater pearl mussel in rivers which drain from The Flow Country. European eel (classed by the IUCN as Critically Endangered) are also recorded from these catchments. Furthermore, the rivers of The Flow Country are maintaining strong populations of Atlantic salmon which are in global decline.	<p>All tower locations have been designed to accommodate a 20 m offset from the nearest watercourse, and although construction works will be undertaken in closer proximity, a minimum buffer of 10 m to watercourses will be implemented during the construction phase. Therefore, there will be no construction works within 10 m of the River Strathy, and there is no potential for impacts on any riparian or aquatic habitats; all aquatic freshwater habitats and species (including European eel, Atlantic salmon and freshwater pearl mussel) were consequently scoped out of the impact assessment.</p> <p>There is embedded mitigation as part of the CEMP to ensure there is no potential for accidental pollution to the River Strathy (or any other watercourse) during the construction phase.</p>	<p>See Chapter 3: The Proposed Development</p> <p>See Chapter 7: Ecology; Section 7.3: Scope of Assessment)</p> <p>See Appendix 3.7: Outline CEMP</p>	No effect

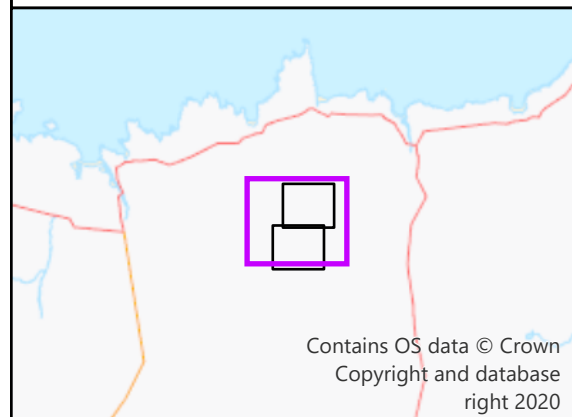
Appendix C

Figure 9.4.3 of SLR (2025) Peatland Condition Assessment Report (showing the Peatland Condition across the area of the Proposed Development)



Legend

- PCA Study Area
- Proposed OHL Alignment
- Proposed Steel Lattice Tower
- Proposed Wood Pole (H pole)
- Proposed Sealing End Compound
- New Permanent Access Track
- New Temporary Access Track
- Existing Wood Pole (H pole)
- Existing 132 kV OHL (Wood Pole)
- Forestry
- Windthrow
- Felled Forestry
- Drained Hagg Gulley
- Drained Artificial
- Modified



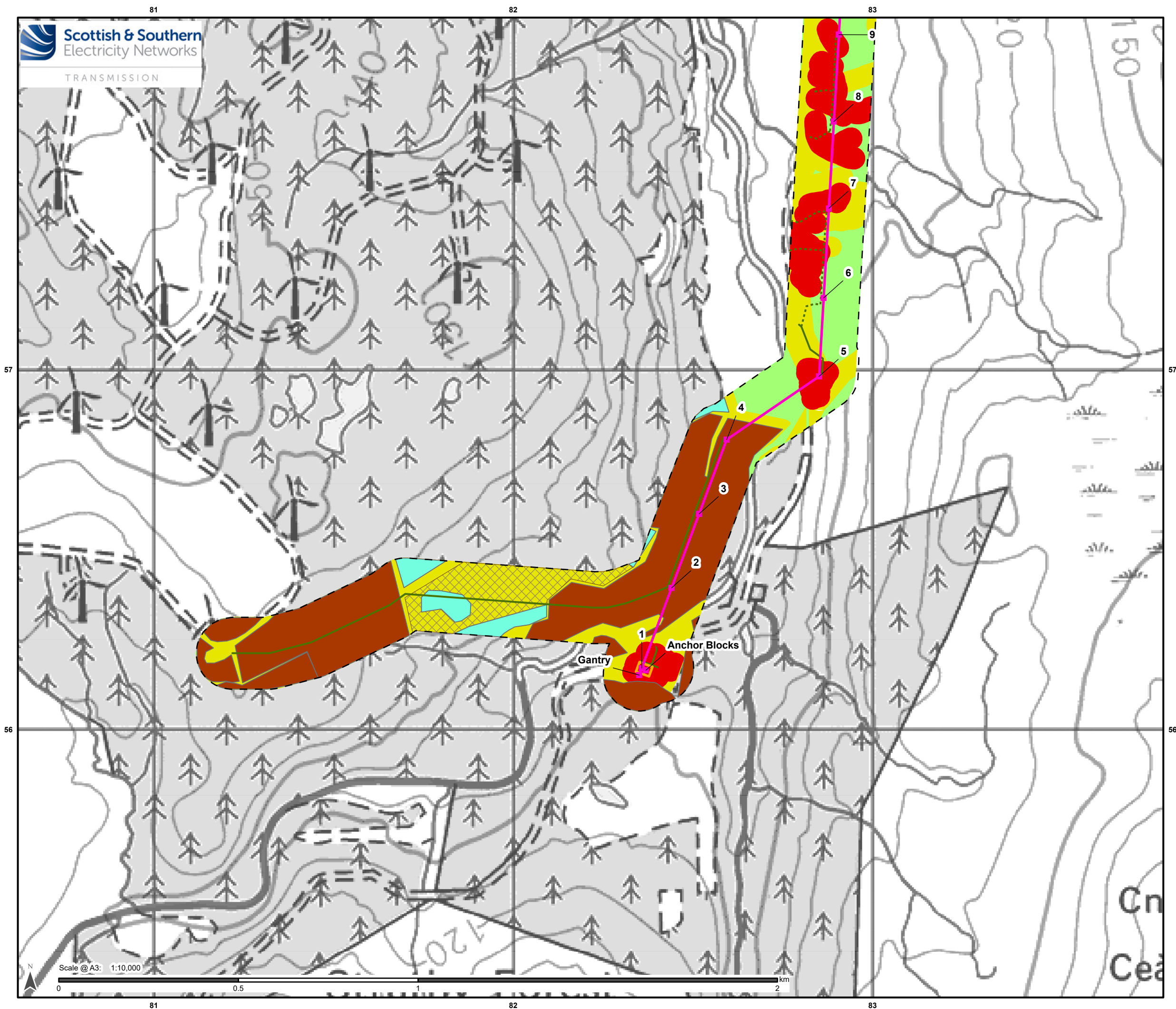
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Project No: LT559
Strathly Wood Wind Farm Grid Connection
Project: EIA Report

Title:
Peatland Condition Assessment
Figure 9.4.3 - Peat Condition
Page 1 of 3

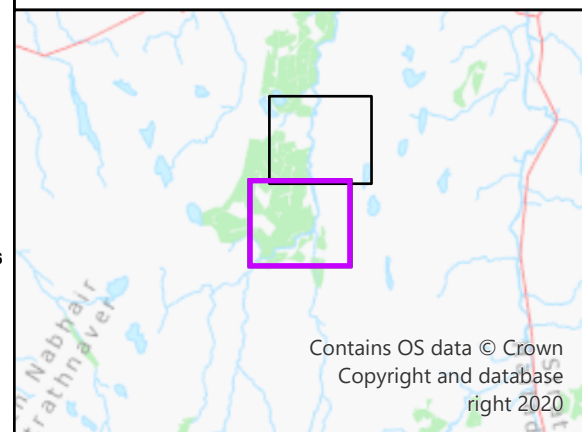
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Legend

- PCA Study Area
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- Proposed Steel Lattice Tower
- Proposed Wood Pole (H pole)
- Proposed Sealing End Compound
- New Permanent Access Track
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- Existing Wood Pole (H pole)
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- Windthrow
- Felled Forestry
- Drained Hagg Gulley
- Drained Artificial
- Modified



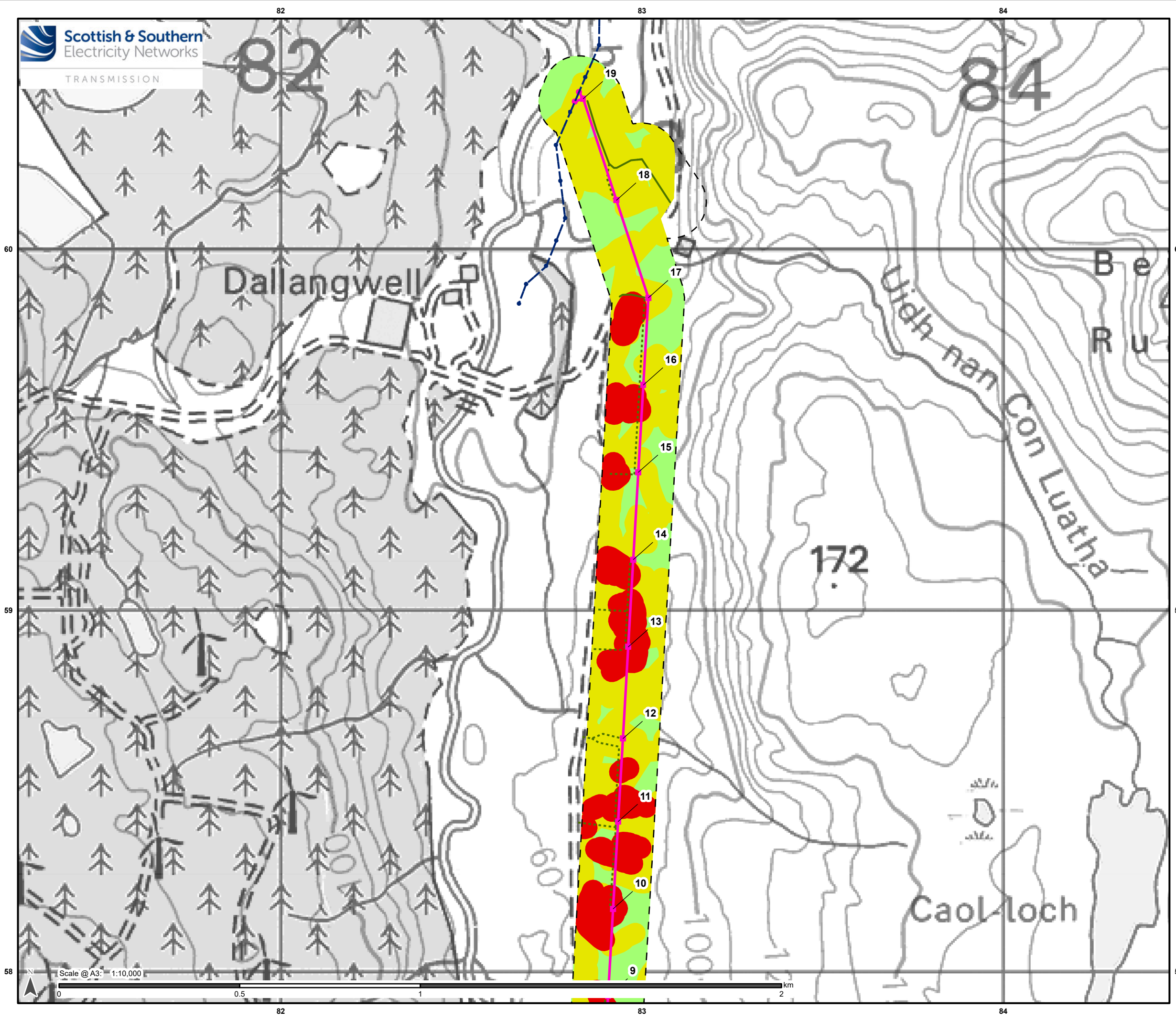
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Project: EIA Report

Title:
Peatland Condition Assessment
Figure 9.4.3 - Peat Condition
Page 2 of 3

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Legend

- PCA Study Area
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- Drained Artificial
- Modified

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Figure 9.4.3 - Peat Condition
Page 3 of 3

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Appendix D

Summary of the Proposed Development's Infrastructure and its Predicted Impacts to Peatlands

Infrastructure	Location	Peat Depth	Condition Class	Impact on Peatland	Notes
Towers					
Tower 1	Outside WHS and SAC	1.13 m	Drained Artificial	Low-Moderate	Surrounded by drainage; peat formation has ceased and is in active decline.
Tower 2-4	Felled forestry Outside WHS and SAC	<0.5m organic rich soil	Drained Artificial	Negligible	High drainage density; low density conifer regeneration.
Tower 5	Near active drainage	<0.5m organic rich soil	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> ; minimal peat impacts.
Tower 6	Exposed bedrock	<0.5m organic rich soil	Modified	Negligible	No Sphagnum present; minimal peat impacts.
Tower 7	Near active drainage	<0.5m organic rich soil	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> ; minimal peat impacts.
Tower 8	Adjacent to erosion features	<0.5m organic rich soil	Drained Artificial	Negligible	Minimal peat impacts; no Sphagnum present.
Tower 9	Adjacent to erosion features	<0.5m organic rich soil	Drained Artificial	Negligible	Minimal peat impacts; no Sphagnum present.
Tower 10	Isolated peat area near active drainage	0.65 m	Drained Artificial	Low	Puddling by sheep; minimal peat impacts.
Tower 11	Near active drainage	<0.5m organic rich soil	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> ; minimal peat impacts.
Tower 12	Historical peat cutting	0.67 m	Drained Artificial	Low	Exposed peat banks; evidence of charring; minimal peat impacts.
Tower 13	Near active drainage	<0.5m organic rich soil	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> ; minimal peat impacts.
Tower 14	Near active drainage	Peat >0.5 m	Drained Artificial	Low	Evidence of charring; minimal peat impacts.
Tower 15	Near active drainage	<0.5m organic rich soil	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> ; minimal peat impacts.
Tower 16	Near active drainage	<0.5m organic rich soil	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> ; minimal peat impacts.
Tower 17	Near active drainage	Peat >0.5 m	Drained Artificial	Low	Evidence of charring; minimal peat impacts.

Infrastructure	Location	Peat Depth	Condition Class	Impact on Peatland	Notes
Tower 18	Mixed conditions	<0.5m organic rich soil	Drained Artificial	Negligible	Dominated by vascular plants; minimal peat impacts.
Tower 19	Historical peat cutting	0.67 m	Drained Artificial	Low	Rare Sphagnum present; dominated by heather and cotton grass.
Permanent and Temporary Access Tracks					
Access Track to Tower 1	Outside WHS	1.13 m	Drained Artificial and Drained Hagg Gulley	Low	Surrounded by drainage; peat formation has ceased and is in active decline.
Access Track to Towers 2-4	Felled forestry	Varies	Drained Artificial	Low	High drainage density; impacts mitigable through use of floating roads in deeper areas.
Access Track to Tower 5	Steep slope	Thin	N/A	Negligible	Dominated by <i>Molinia caerulea</i> and <i>Myrica gale</i> ; minimal peat impacts.
Access Track to Towers 6-7	Former peat cuts	N/A	N/A	Negligible	Dominated by <i>Molinia caerulea</i> and <i>Myrica gale</i> ; minimal peat impacts.
Access Track to Towers 8-9	Patchy peat coverage	N/A	N/A	Negligible	Dominated by <i>Molinia caerulea</i> and <i>Myrica gale</i> ; minimal peat impacts.
Access Track to Towers 10-11	Patchy peat coverage	N/A	N/A	Negligible	Dominated by <i>Molinia caerulea</i> and <i>Myrica gale</i> ; minimal peat impacts.
Access Track to Towers 11-12	Avoids peat	N/A	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> and vascular plants; minimal peat impacts.
Access Track to Tower 13	Avoids peat	N/A	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> and vascular plants; minimal peat impacts.
Access Track to Tower 14	Avoids peat	N/A	Drained Artificial	Low	Dominated by <i>Molinia caerulea</i> and vascular plants; minimal peat impacts.
Access Track to Towers 15-17	Avoids peat	N/A	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> and vascular plants; minimal peat impacts.
Access Track to Tower 18	Mixed conditions	N/A	Drained Artificial or Modified	Low	Dominated by vascular plants; minimal peat impacts.
Access Track to Tower 19	Historical peat cutting	N/A	Drained Artificial	Moderate	Rare Sphagnum present; potential for functional conditions; impact mitigatable through use of floating roads where appropriate, micro-siting and following best practice guidance.
Wooden Pole and Cable Sealing End (CSE) Compound					
CSE Compound	Area of microerosion and hagged gulleys	1.13 m	Drained Artificial and Drained Hagg Gulley	Low - Moderate	Lies within the area of influence of existing forestry drainage and drainage for the adjacent residential property
Wooden Pole (128A)	Avoids peat	N/A	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> and vascular plants; minimal peat impacts.
Wooden Pole (129A)	Avoids peat	N/A	Drained Artificial	Negligible	Dominated by <i>Molinia caerulea</i> and vascular plants; minimal peat impacts.

Appendix E

Summary of the NVC Communities to be affected by the Proposed Development and their Associated Condition

NVC Community and Peat Condition Category	Permanent Effect (ha)	Permanent Indirect Effect (ha)	Temporary Effect (ha)	Grand Total (ha)
M15				
- Drained Artificial & Drained Hagg Gulley	0.04	0.19	0.16	0.39
- Drained Hagg Gulley	0.00	0.06	0.08	0.14
- Modified	0.00	0.09	0.10	0.19
- Drained Artificial	0.11	0.22	0.13	0.46
M15+M25				
- Drained Artificial & Drained Hagg Gulley	0.00	0.00	0.02	0.02
- Drained Hagg Gulley	0.00	0.00	0.02	0.02
- Drained Artificial	0.00	0.00	0.00	0.00
M15b				
- Drained Artificial & Drained Hagg Gulley	0.00	0.00	0.00	0.00
- Drained Artificial	0.01	0.03	0.01	0.05
M15c				
- Drained Artificial & Drained Hagg Gulley	0.00	0.02	0.13	0.16
- Drained Hagg Gulley	0.00	0.01	0.01	0.03
- Modified	0.00	0.03	0.04	0.07
- Drained Artificial	0.00	0.11	0.11	0.22
M15c+H10				
- Drained Artificial & Drained Hagg Gulley	0.00	0.00	0.00	0.00
M17				
- Drained Artificial & Drained Hagg Gulley	0.02	0.00	0.04	0.06
- Drained Hagg Gulley	0.00	0.00	0.00	0.00
- Modified	0.00	0.00	0.00	0.00

- Drained Artificial	0.00	0.00	0.04	0.04
M17a				
- Drained Artificial & Drained Hagg Gulley	0.00	0.06	0.14	0.19
- Drained Hagg Gulley	0.00	0.00	0.00	0.00
- Modified	0.00	0.00	0.00	0.00
- Drained Artificial	0.00	0.06	0.11	0.16
M17b				
- Drained Artificial & Drained Hagg Gulley	0.00	0.00	0.00	0.00
- Drained Artificial	0.00	0.05	0.02	0.07
M20				
- Modified	0.00	0.00	0.00	0.00
- Drained Artificial	0.00	0.00	0.01	0.01
M25				
- Drained Artificial	0.00	0.00	0.01	0.01
M25a				
- Drained Artificial & Drained Hagg Gulley	0.00	0.06	0.10	0.16
- Drained Hagg Gulley	0.00	0.00	0.00	0.00
- Modified	0.00	0.00	0.01	0.01
- Drained Artificial	0.00	0.03	0.04	0.07
M25a:M15c:M17b				
- Drained Artificial & Drained Hagg Gulley	0.00	0.00	0.00	0.00
- Drained Artificial	0.00	0.00	0.00	0.00
M6c:U20b:W23				
- Drained Artificial	0.00	0.01	0.00	0.01
Grand Total	0.20	1.03	1.35	2.57