Strathy Wood Wind Farm Grid Connection

Additional Information

Peatland Condition Assessment Report

June 2025

Strathy Wood Wind Farm Grid Connection: Additional Information

Peatland Condition Assessment Report

SSEN Transmission

Prepared by:

SLR Consulting Limited

The Tun, 4 Jackson's Entry, Edinburgh, EH8 8PJ

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Making Sustainability Happen

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1.0 Executive Summary

The proposed Strathy Wood Wind Farm Grid Connection (the “Proposed Development”) comprises approximately 4.5 km of 132 kV double circuit OHL supported by 19 steel lattice towers. This OHL would commence from a cable sealing end (CSE) compound, situated at Ordnance Survey (OS) grid reference NC 82363 56167, in the vicinity of the Strathy Wood Wind Farm on-site substation. In the northern extents of the OHL, the route would ‘T’ onto the existing Strathy North trident ‘H’ wood pole 132kV OHL. Two new trident 'H' wood poles would be built to complete the connection.

This Detailed Peatland Condition Assessment outlines the baseline conditions present within the area of the Proposed Development and aims to identify any areas of active peatland and ensure that peat disturbance of these areas is minimised where technically feasible during detailed design and construction of the development.

The results show that the Proposed Development lies within an area of marginal, modified peatland which has been subject to high grazing pressure, drainage and peat cutting in the past, as well as afforestation, and predominantly comprises peatland and heathland in a **Drained Artificial Condition**.

The remaining peat constitutes a series of hydrologically isolated and topographically controlled peat bodies which are largely within the area of influence of active drainage associated with existing access track infrastructure serving the various former forestry blocks and more recently wind energy infrastructure, or from historic land drainage schemes. This is supported by the high peat density and dry condition of peat observed.

Peat forming vegetation is in general absent across a large part of the Proposed Development area with rare or absent *Sphagnum*. Where *Sphagnum spp.* is present, it is generally formed of generalist or drought tolerant species which also occur in dry heath such as *Sphagnum capillofolium and Sphagnum fallax*. Across large parts of the Proposed Development *Molinia caerulea* is abundant or dominant with *Myrica gale* abundant, representing a conversion of blanket peatland to a low diversity dry heath assemblage as a result of drainage and grazing. There are also areas of Sitka and Lodgepole pine colonisation from the adjacent forestry plantations.

The impact of the Flow Country wildfire in 2019 has also been severe with little recovery since 2019 and the replacement of peat-forming species with more drought tolerant non-peat forming species. This indicates that drainage has severely impacted peatland function in this area compared to elsewhere within the fire footprint where recovery has been much faster.

Overall, the proposed temporary and permanent infrastructure of the Proposed Development largely avoids peatland and where this is unavoidable due to design constraints, the Proposed Development is located on drained and modified peatland with impaired function, and which by definition has ceased peat accumulation. It is therefore considered that the impacts of the Proposed Development on peatland are likely to be **Negligible** to **Low.**

2.0 Introduction

2.1 General

SLR Consulting Ltd (SLR) was commissioned by ASH design+assessment Ltd on behalf of Scottish and Southern Electricity Networks (SSEN) Transmission to prepare a Detailed Peat Condition Assessment (PCA) for the proposed Strathy Wood Wind Farm Grid Connection (the "Proposed Development") for which an application of consent under section 37 of the Electricity Act 1989 was issued to the Energy Consents Unit (ECU) of the Scottish Government in November 2024 (Ref: ECU00005221).

The work has been undertaken by a team of Peatland Specialists and Geologists, with over 17 years' experience in undertaking peat assessments and was led by Dr. Chris Marshall, Principal at SLR. Chris holds a BSc (hons) Environmental Geology, an MSc in Geochemistry and a PhD in Earth Sciences, with over 10 years of experience in peatland condition and restoration monitoring and assessment including peer reviewed scientific papers, policy documents, governmental reports and membership of scientific and technical advisory groups.

2.2 The Proposed Development

The Proposed Development is located approximately 6.5 km south of Strathy, Sutherland in northern Scotland.

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 tower would head in a northerly direction where it would 'T' onto the existing Strathy North trident 'H' wood pole 132 kV OHL. 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 **(Annex B – Figure 9.4.1)**.

Full details of the Proposed Development are provided in Volume 1, Chapter 3: The Proposed Development of the Strathy Wood Wind Farm Grid Connection EIA Report (2024)**.**

2.3 Scope and Objectives

This Detailed PCA outlines the baseline conditions present within the area of the Proposed Development and aims to identify areas of active peatland and ensure that peat disturbance of these areas is minimised via design and mitigation where technically feasible during detailed design and construction of the development. The PCA has been undertaken in accordance with best practice guidance [1,2,3,4,5].

The PCA aims to:

1. Quantify the current condition status of peatland habitats on-site.

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[1] Burden, A., Radbourne, A., Williamson, J., Evans C., 2020 A rapid method for basic peatland condition and national-scale satellite analysis

[2] Bradley, A.V., Mitchell, E., Dryden, I., Fallaize C., Islam, M,T, Large, D.J., Andersen, R., Marshall C., (In press) Analysis of an InSAR "bog breathing" based classification of peatland condition relative to field observations in Cairnsmore NNR, NatureScot Research Report 1269

[3] Crichton Carbon Centre (2015) Annex 1 Field Protocol and Guidance, Developing Peatland Carbon Metrics and Financial Modelling to Inform the Pilot Phase UK Peatland Code' Report to Defra for Project NR0165.

[4] JNCC. 1994. Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 8 Bogs. JNCC, Peterborough.

[5] SNH Peatland Condition Assessment https://www.nature.scot/sites/default/files/2023-02/Guidance-Peatland-Action-Peatland-Condition-Assessment-Guide-A1916874.pdf [accessed June 2024]

2. Determine the impact of the development on peatland habitats on-site.
3. Inform developmental design and evidence the application of the requirements of the mitigation hierarchy in the Scottish Government's National Planning Framework 4 (NPF4) and the steps that development proposals must follow to reduce their environmental impact namely:

- **Avoid:** Remove the impact at the outset
- **Minimise**: Reduce the impact
- **Restore:** Repair damaged habitats
- **Offset:** Compensate for any remaining impact, preferably on-site

The PCA has 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; 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). Additionally, the identification of 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 at the area of the Proposed Development, and external resources (including deer management group data etc).
- 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.

The data collected is then used to produce a conceptual model derived from the PCA which will guide and demonstrate:

- How peatland condition is distributed across the Proposed Development, address the likelihood of extensive ‘active’ or near natural peatland being present across the Proposed Development and identify areas of particularly good condition peatland or refugia that should be avoided by design.
- How, through site investigation and iterative design, the Proposed Development has been structured and designed to avoid, so far as reasonably practicable, areas of active peatland;
- Identify areas of peatland with the greatest potential for enhancement and the opportunities and risks associated with peatland restoration at and within the area of the Proposed Development.

3.0 Basis for Peatland Condition Assessment

3.1 Policy Background

NPF4 places significant emphasis on the protection and restoration of peatlands due to their crucial role in carbon storage, biodiversity, and water regulation with relevant policies including:

- **Policy 1**: Addresses the global climate and nature crises, emphasizing the need to protect, conserve, restore, and enhance biodiversity.
- **Policy 3**: Requires developments to provide significant biodiversity enhancements, including restoring degraded habitats and strengthening nature networks.
- **Policy 5**: Focuses on protecting carbon-rich soils, restoring peatlands, and minimising soil disturbance from development.

NPF4 Policy 5d, requires that '*where development on peatland, carbon-rich soils or priority peatland is proposed, a detailed site specific assessment will be required*'. This should include peat depth surveys (initial, detailed and additional information), Peat Landslide Hazard Risk Assessment (PLHRA), and detailed habitat surveys (National Vegetation Classification (NVC)), including an assessment of condition. As such under NPF4, any development on peatlands must undergo a detailed site-specific assessment. For the Proposed Development the following detailed site-specific assessment has been undertaken:

- **Peat Depth Surveys**: To determine the extent and depth of peat.
- **Peat Landslide Hazard Risk Assessment (PLHRA)**: To assess the risk of peatland instability.
- **Habitat Surveys**: Including National Vegetation Classification (NVC) surveys to assess the types of habitat present.
- **Peatland Condition Assessment**: to determine the condition of peatland habitat present on site and guide adherence to the mitigation hierarchy outlined in NPF4 including avoidance of peatland in near natural condition.

PCA in Scotland is generally categorised into four conditions for assessment although Peatland Code subdivides these further to link with emission factors:

1. **Near-Natural**: Dominated by peat-forming species with minimal human impact.
2. **Modified**: Shows signs of human impact such as grazing and burning.
3. **Drained:** Affected by artificial drainage, leading to altered vegetation.
4. **Actively Eroding:** Characterised by extensive bare peat surfaces and significant erosion.

Priority Peatland Habitats are also assessed by NatureScot and include blanket bogs, montane bogs, and other peat-forming communities. These habitats are considered crucial for biodiversity and carbon sequestration. The guidance emphasises avoiding impacts on these high-quality habitats and is assessed using JNCC Site of Special Scientific Interest (SSSI)[6] criteria.

Ideally, a PCA in a development context should provide enough information on key condition indicators to:

[6] JNCC. 1994. Guidelines for the Selection of Biological SSSIs. Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 8 Bogs. JNCC, Peterborough.

- Provide a baseline of pre-development condition and likely priority peatland status.
- Guide the location of infrastructure at detailed design stage, and evidence adherence to the mitigation hierarchy.

3.2 Definition of Peat

Peat is defined as an organic soil comprising the partly decomposed plant remains that have accumulated in-situ, rather than being deposited by sedimentation. When peat forming plants die, they do not decay completely as their remains become waterlogged due to regular rainfall. The effect of waterlogging is to exclude air and hence limit the degree of decomposition. Consequently, instead of decaying to carbon dioxide and water, the partially decomposed material is incorporated into the underlying material and the peat 'grows' in-situ.

The Scottish Government Peat Landslide Hazard Best Practice Guide (2017) uses the following Joint Nature Conservation Committee (JNCC) report 455 'Towards an Assessment of the State of UK Peatlands' definition for classification of peat deposits:

- Peaty (or organo-mineral) soil: a soil with a surface organic layer less than 0.5 m deep;
- Peat: a soil with a surface organic layer greater than 0.5 m deep which has an organic matter content of more than 60 %; and
- Deep Peat: a peat soil with a surface organic layer greater than 1.0 m deep.

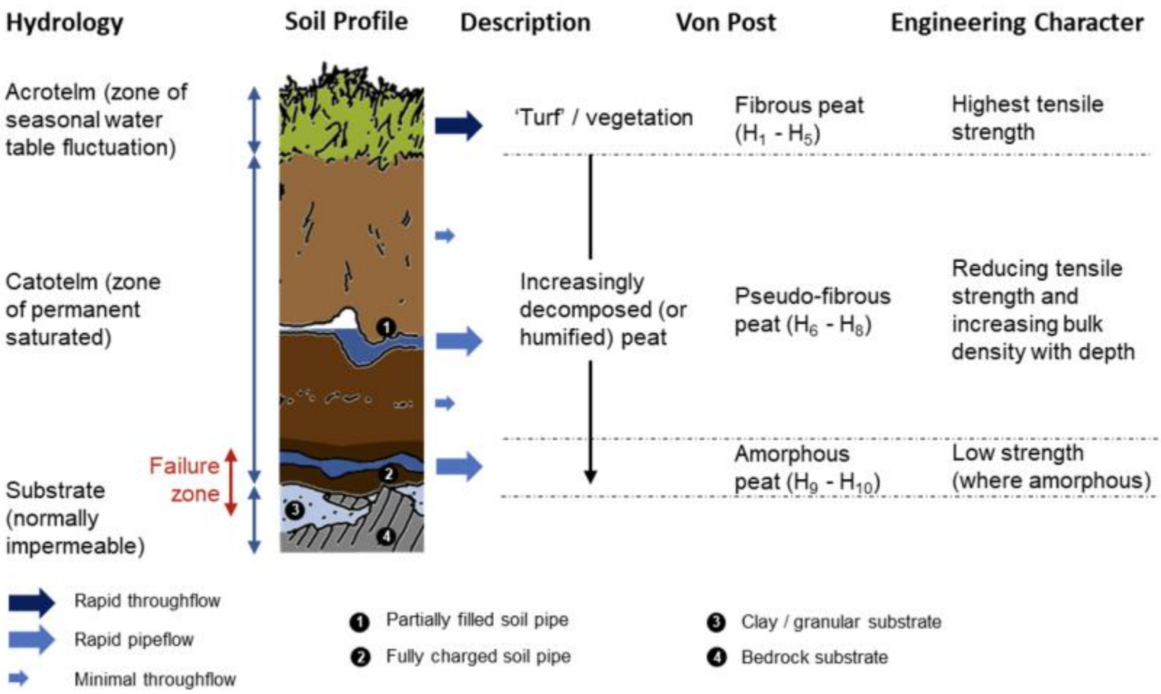


Plate 1- Typical Peat Profile[7]

There are two principal types of peat in a near natural peatland (see **Plate 1**):

[7] Mills, A.J. and Rushton, D. 2023. A risk-based approach to peatland restoration and peat instability. NatureScot Research Report 1259.

- The upper (acrotelm) layer in which the water table fluctuates, which is fibrous and comprises plant roots etc. The acrotelm is relatively dry and has some tensile strength and its thickness typically ranges from 0.1 m to 0.6 m deep.
- The lower (catotelm) layer, which is saturated, sitting permanently below the water table. The catotelm layer is highly decomposed, generally becoming more amorphous/liquid in nature and losing structure with increasing depth. The structure of catotelmic peat tends to disrupt completely on excavation and handling.

3.3 Definition of Peatland Condition

Peatland condition reflects a combination of the hydrological, physical (mechanical) and ecological characteristics of a peatland (see **Plate 2**). In a functioning actively accumulating peatland each exists within a state of dynamic equilibrium acting through a series of negative feedbacks to buffer against external forcing (e.g climate) ensuring the continued growth and development of the peatland. An ecohydrological basis is commonly used to determine peatland condition although often there is a focus on peatland vegetation due to the expertise of ecological assessors and the difficulty in direct measurement of peatland hydrology and peat condition during a single field campaign.

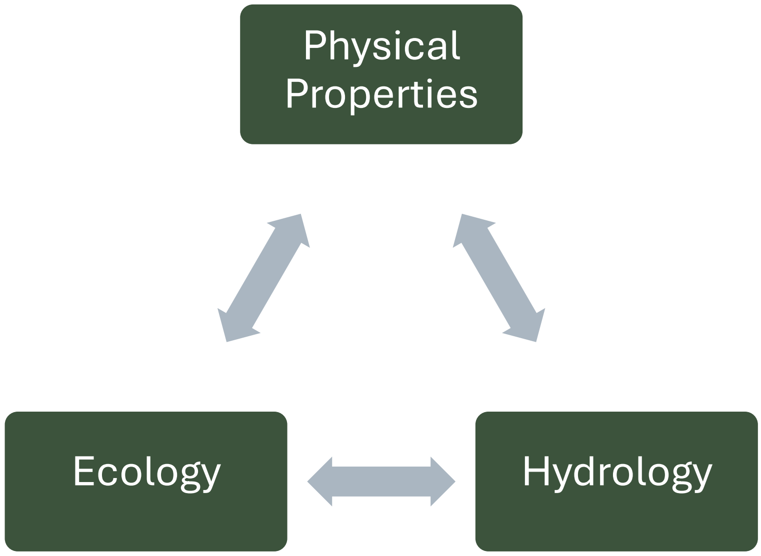


Plate 2 - Framework for Peatland Condition Assessment

Various peatland condition assessment protocols exist for blanket peatland in Scotland and elsewhere within the UK focusing on evaluating the health and functionality of peatlands, which are crucial for carbon storage, water regulation, and biodiversity. Common key indicators of peatland condition include the presence of extensive *Sphagnum* moss, the extent of bare peat, and evidence of grazing or burning. A universally accepted measure of peatland condition does not exist, and is therefore somewhat subjective. Consequently, all peatland condition assessments rely to a certain extent on the interpretation of key metrics by the surveyor. There are also common misconceptions regarding peatland condition for example;

- Vegetation often lags peatland condition for example refugia exist on all but the most degraded peatland and therefore low cover of peat-forming species can be expected even on drained and actively eroding peatlands. Likewise in rewetted peatlands, vegetation often lags hydrology with dry indicator species persisting even after rewetting. The presence of low cover peat forming species is not an indicator of active peatland.

- Key positive indicators such as peatland microtopography can be present in full but each component hydrologically isolated from other parts due to deep incision particularly on upland peats indicating that full functionality is not present.
- Small scale (Quadrat scale) observations are generally unrepresentative of peatland condition at larger scale, therefore whilst useful for identifying species present, peatland hydrology and mechanics often operates on multiple scales not captured by this approach. Also due to canopy effects these measures are often incompatible with remote sensing data limiting their ability to be upscaled using new technologies for monitoring peatland condition e.g. InSAR.

In order to counter this and provide a means of upscaling NVC data across the Proposed Development, the PCA uses a combination of a desk study and a field-based approach, and metrics based on the rapid peatland condition assessments supplemented by specific information required for the JNCC SSSI selection criteria. The results can be seen within the following sections of this report namely a desk study of peatland condition indicators on site and a field validation of peatland condition indicators not visible from satellite imagery followed by in depth analysis of Peatland Condition within the footprint of infrastructure within the Proposed Development.

4.0 Desk Assessment of Peatland Condition

The Peatland Condition Assessment covers the area of the Proposed Development within the Limit of Deviation (LoD). It is assumed that the existing forest track represents a pre-existing barrier to hydrology, as well as slopes and natural watercourses to hydrological connectivity, and therefore areas across these are unlikely to have significant impacts from the development.

4.1 Site Characteristics

4.1.1 Topography

Based on the digital terrain model available from the BGS Geoindex[8], the topography across the Proposed Development is generally low-lying (40 to 135 m above ordnance datum (AOD)) with steep slopes rising towards the east and west. The majority of the Proposed Development is located on the eastern banks of the River Strathy (at approximately 40 to 80 m AOD) with slope gradients increasing from west to east. The lowest elevations are situated at the northern extents of the Proposed Development adjacent to proposed Tower 19 (approximately 40 m AOD). The south of the Proposed Development is situated at the highest elevation (approximately 135 m AOD), particularly adjacent to the proposed Permanent Access Tracks at the existing Strathy North Wind Farm.

4.1.2 Hydrology

The Proposed Development is located entirely within the River Strathy surface water catchment. The River Strathy flows northwards within the southern and western extent of the Proposed Development before discharging to the sea at Strathy Bay, approximately 5 km north of the Proposed Development. The Proposed Development crosses over the River Strathy at NGR NC 82401 56287 and at NGR NC 82793 56920.

The Proposed Development is drained by the following sub catchments of the River Strathy (from north to south):

- **Bowside Burn sub catchment** which drains a small area along the northeastern boundary of the Proposed Development. The burn flows generally westwards before discharging into the River Strathy immediately north of the Proposed Development;
- **River Strathy – The Uair sub catchment.** The Uair drains part of the southeastern extent of the Proposed Development and discharges into the River Strathy within the southeastern extent of the Proposed Development. No development is proposed within this sub catchment; and
- **Allt nan Clach / River Strathy sub catchment.** The Allt nan Clach is a tributary of the River Strathy which discharges into the River Strathy approximately 940 m southwest of the Proposed Development.

4.1.3 Hydrogeology

Information from Scotland's environment map[9] indicates that the Proposed Development is underlain by the Moine Supergroup, with the northern extents at Bowside underlain by the Strathy Complex. These rocks are classified as low productivity aquifers whereby small

[8] BGS Online Viewer, available at [https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.133433804.376188765.1646739904-1030004651.1646739904]
[9] Scotland's Environment Online Viewer. Available at [https://map.environment.gov.scot/sewebmap/]

amounts of groundwater are expected in near surface weathered zones and secondary fractures.

The Aquifer Productivity and Groundwater Vulnerability dataset classifies the underlying aquifer (superficial and bedrock) according to the predominant groundwater flow mechanism (fracture or intergranular) and the estimated groundwater productivity. The bedrock aquifer underneath the Proposed Development is considered a low productivity aquifer generally without groundwater except at shallow depths and with flow almost entirely through fractures and other discontinuities.

The peat and hummocky glacial superficial deposits within the Proposed Development are not considered a significant aquifer. The alluvial, river terrace and glaciofluvial deposits, where present, are considered highly productive aquifers with intergranular flow; groundwater within these deposits are likely to be in hydraulic conductivity with adjacent watercourses.

Groundwater vulnerability is divided into five classes (1 to 5) with 1 being least vulnerable and 5 being most vulnerable. The Proposed Development is shown to be underlain by groundwater vulnerability Classes 5 to 4b. The highest vulnerability is noted within the northwest where no or shallow superficial deposits are recorded. Groundwater is less vulnerable where overlain by superficial deposits.

4.1.4 Sensitive Receptors

Sites of Special Scientific Interest (SSSI)

The majority of the Proposed Development is situated within the West Halladale SSSI. The designation is for blanket bog, in addition to ecological interests including Black-throated divers and Common scoters.

Special Area of Conservation (SAC) Special Protection Area (SPA) and Ramsar

The majority of the Proposed Development is situated within the Caithness and Sutherland Peatlands SAC, SPA and Ramsar sites which are designated for the presence of features such as blanket bog, acid peat-stained lakes and ponds, wet heathland and mires and the breeding bird populations that they support.

Flow Country World Heritage Site (WHS)

The northern extents of the Proposed Development are also located within the northern extent of the Flow Country WHS.

4.1.5 Groundwater Dependent Terrestrial Ecosystems (GWDTE)

A National Vegetation Classification (NVC) habitat mapping exercise was conducted as part of the ecology baseline assessment, and this has been used to identify potential areas of Groundwater Dependent Terrestrial Ecosystems (GWDTEs) within the Proposed Development. The methodology and results of the NVC habitat mapping exercise are discussed in detail within Volume 1, Chapter 7: Ecology of the 2024 EIA Report.

The potential GWDTE habitats are assessed in Volume 1, Chapter 9: Soils Geology and Water of the 2024 EIA Report and are considered to be sustained by rainfall, surface water runoff and waterlogging of soils rather than by groundwater.

4.1.6 Peatland Classification

The Scottish Natural Heritage (now NatureScot) Carbon and Peatland Map 2016[10] indicates that approximately 460 m and 1.7 km of the proposed OHL route is located within an area of Class 1 and Class 2 peatland respectively. There are areas of Class 1 peat mapped in the northern extents of the Proposed Development, at proposed Towers 18 and 19, and in localised areas of the south of the Proposed Development. 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 considered nationally important carbon rich soils, deep peat and priority peatland habitats with high conservation and restoration value.

The remainder of the Proposed Development is mapped as Class 3 and Class 5 peat, with areas of Class 3 situated across the western extents of the Proposed Development from Towers 8 to 16 and Class 5 peat is mapped predominantly in the southern extents of the Proposed Development and localised areas of the north. Class 3 peatland is not considered priority peatland habitat, however, most of the 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 be present.

Peat and peat soils surrounding the Proposed Development have been used intensively over the past century with plantation forestry to the west of the proposed grid connection and to the east sheep grazing, hill drainage and peat cutting. In addition, the east of the Proposed Development was subject to intense peat loss as a consequence of the 2019 Flow Country wildfire.

4.2 Land Management Context

4.2.1 Agriculture

Large areas of the Proposed Development are comprised of rough grazing. This has resulted in large areas of terracing of slopes and areas of puddling as well as large numbers of animal tracks. Agriculture appears to be primarily pastoral with sheep observed on satellite imagery and by field observation. All-Terrain Vehicle (ATV) access tracks serving pasture and for use in deer stalking/peat cutting are also widespread within the Proposed Development boundary. Management of sheep is carried out across large common grazing areas, although the numbers of livestock have declined in recent years, historic grazing impacts likely remain.

4.2.2 Deer Management

Deer counts from the 2021-2022 indicate that deer numbers are unknown within the Proposed Development boundaries however nearby counts indicate deer numbers are likely to be <10/ha. Within the 2022 management statement for the West Halladale SSSI[11] concerns were raised regarding deer from plantations moving onto the blanket bog from the woodland through degraded forest fencing with deer causing localised trampling and erosion around the fence, especially in places where the fence was no longer deer-proof.

4.2.3 Forestry

The southern part of the Proposed Development primarily to the west of the River Strathy are formed of Sitka Spruce and Lodgepole pine plantation for commercial forestry. Smaller areas

[10] NatureScot, Carbon and Peatland Map 2016, Available online at: map.environment.gov.scot/soil_maps/

[11] NatureScot (2022) available online https://www.nature.scot/sites/default/files/site-special-scientific-interest/1607/site-management-statement.pdf

appear to have been recently felled or replanted with other small areas showing the impacts of windblow. Although some of the conifer plantations that used to border the Proposed Development have been removed, some still remain. There is a local problem with regeneration of conifers on the bog close to plantations on the western edge of the site. The area currently affected appears to be relatively small and the density of seedlings/saplings is not very high. However, as they grow, they are likely to dry out the peatland habitat in that area.

4.2.4 Other Management

Wildfire and Managed Burning

The 2022 management statement for the West Halladale SSSI notes the use of Muirburn historically across the area of the Proposed Development, however this has reduced in recent years. The Flow Country wildfire recorded in May 2019 burned for six days, impacting about 22 square miles (5,700 hectares) of the peatland between Melvich and Strathy. This fire released an estimated 700,000 tonnes of greenhouse gases into the atmosphere. A recent study[12] highlights that the area of the Proposed Development was amongst the most severely impacted by the 2019 wildfire. The 2019 wildfire footprint **(Plate 3)** covers between Tower 5 and Tower 17 of the Proposed Development and is therefore likely to have a significant impact on peatland condition in these areas.

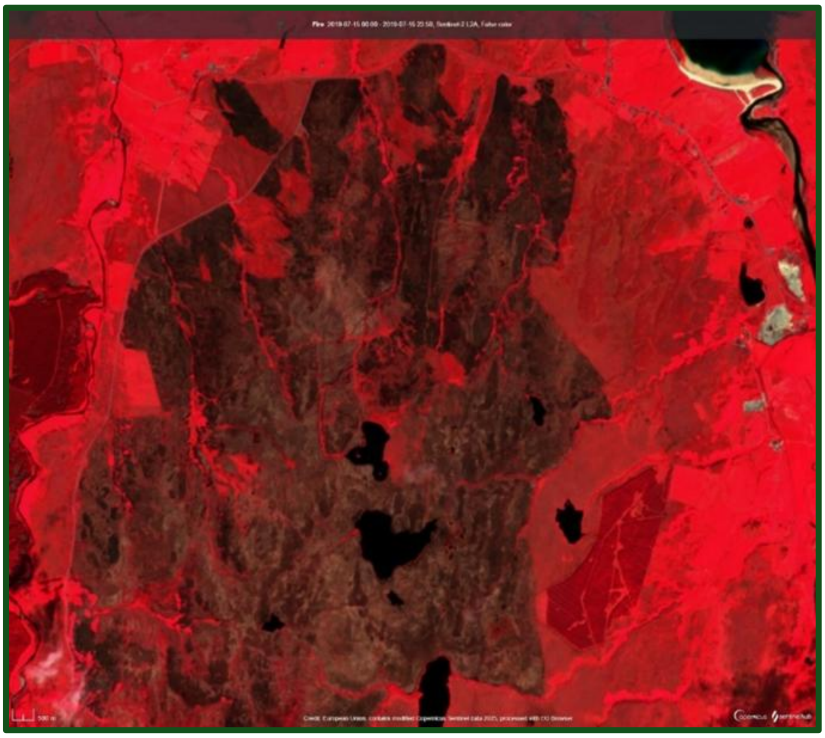


Plate 3 - Sentinel 2 NIR imagery of the extent of the 2019 Flow Country Wildfire with burned areas shown in brown within the area of the Proposed Development.

[12] Andersen, R., Fernandez-Garcia, P., Martin-Walker, A. et al. Blanket bog vegetation response to wildfire and drainage suggests resilience to low severity, infrequent burning. fire ecol 20, 26 (2024). https://doi.org/10.1186/s42408-024-00256-0

Infrastructure Development

Built infrastructure in proximity to the Proposed Development is largely accounted for by an existing access track that originally served former forestry plantations and was upgraded to enable access to the (now operational) Strathy North Wind Farm. The access track is being further upgraded to enable access to the consented wind farms of Strathy South and Strathy Wood. This is a longstanding track with extensive drainage either side. At the proposed CSE compound, there was a former residential dwelling (now demolished) with associated drainage surrounding it. In the northern extent of the Proposed Development there is an existing trident wood pole OHL that enables connection of the Strathy North Wind Farm to the transmission network at Connagill substation. There is evidence of pre-existing tracking impacts around the wood poles.

Peat Cutting/Turbary

Abandoned peat-cuttings can be observed across open areas of the Proposed Development, these appear to have been largely colonised but represent a long lived drainage feature within the landscape.

5.0 Existing Peatland Condition Indicators

5.1.1 Peat Depth

Peat depth is an important aspect of peatland condition as it is an indicator of:

- Whether peat is present or absent, e.g. where the probing recorded less than 0.5 m thick, it is considered to be a peaty soil (or organo-mineral soil). Soils with a peaty organic horizon over mineral soil are often referred to as ‘peaty soils’. These organo-mineral soils are extensive across the UK uplands, but do not meet recognised definitions of peat as they are either shallower than true peat or have a lower carbon density.
- Long term peatland resilience to external forcing e.g. thicker peats have consistently sequestered carbon over a longer period than more marginal peat areas.
- Long term degradation, areas of extensive drainage are likely to have lost peat from oxidation or erosion, alongside compaction which can reduce peat depths further.
- Peatland hydrology and function, peat depth is likely to impact the character and function of the peatland as a whole with deeper peats less susceptible to loss of water below the mineral-peat interface.

Phase 1 peat probing resulted in probing on an approximate 100 m grid on initial assessment areas of the OHL route which was used in preliminary site layout designs.

Phase 2 probing saw detailed probing undertaken across the Proposed Development layout, focussing on access tracks, tower / pole locations and other site infrastructure. The Phase 1 and 2 survey informed the site design such that areas of recorded peat could be avoided where technically feasible.

Further details regarding probing methodologies can be found in Volume 4, Appendix 9.2 Outline Peat Management Plan (PMP) of the 2024 EIA Report.

A total of 3,129 peat probes were undertaken across all survey phases, with the results summarised in **Table A** and detailed within the peat depth interpolation figures (in Volume 4, Appendix 9.2 Outline PMP of the 2024 EIA Report). The interpolation was undertaken using the Inverse Distance Weighting (IDW) methodology.

Table A - Summary of Peat Depths

Peat Thickness (m)	No. of Probes	Percentage (of total probes undertaken on-site)
0 (no peat)	35	1.1
0.01 – 0.49 (peaty and mineral soils)	1772	56.6
0.50 – 0.99	727	23.2
1.00 – 1.49	282	9.0
1.50 – 1.99	169	5.4
2.00 – 2.49	72	2.3
2.50 – 2.99	42	1.3
3.00 – 3.49	12	0.4
3.50 – 3.99	14	0.4
> 4.00	4	0.1

Overall, peat forms approximately 35% of the area considered within the Proposed Development. Peat across the Proposed Development is dominated by peaty and non peaty soils <0.5 m (57.7%) followed by peat <1 m (23.2%) making up almost 81% of probe points. Deep peat is generally concentrated within forestry, windthrow and felled forestry within the Strathy North Wind Farm and within the north of the Proposed Development west of the access track. Elsewhere across the Proposed Development peat is highly fragmented and geologically constrained within hollows within the post glacial landscape and is characterised by small subbasins constrained to the west by the existing access track and to the east by N-S trending topographic highs and steep slopes with frequent rock outcrops which further constrain peat formation. Peat depth has further reduced in the area due to historic peat cutting and burning from the Flow Country wildfire.

5.1.2 Peat Condition

Peat and peat soils at and within the area of the Proposed Development have been subject to a number of pressures over the past century which include grazing (deer and sheep), peat cutting (turbary) and wildfire which has contributed to significant degradation of peat habitats in areas of the Proposed Development.

Based on interpretations from probing and peat core samples, the peat within the Proposed Development is predominantly fibrous to pseudo fibrous. Shallow peat deposits across the Proposed Development are generally fibrous. Deeper peat deposits are generally characterised as pseudo-fibrous with rare amorphous peat encountered at depth.

Based on field descriptions at augering points, most of the shallow peat is classified as between H2 and H6 in the von Post classification, showing insignificant to moderate decomposition and indicating areas of enhanced surface degradation. Areas of deeper peat were classed as H7 and H8. This conforms with the highly modified nature and intensive land management practises found on peatlands within the Proposed Development. Peat core logs and photographs are presented within Volume 4, Appendix 9.2 Outline PMP of the 2024 EIA Report.

This is reflected by the patchy nature of peat across the Proposed Development with areas of peat cutting leading in many cases to loss of peat down to underlying mineral soil. Elsewhere elevated and isolated peat banks have been subject to desiccation and have been colonised by dry heath species which, whilst retaining greater peat depth, has reduced resilience to wildfire with extensive charring and peat loss observed. In many places within the Proposed Development subsidence has led to compaction and peat loss to a significant extent leading to replacement 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 to be particularly concentrated within central areas of the Proposed Development within the Flow Country WHS. The Proposed Development lies almost entirely within the area of influence of drainage from the existing access track leading south to Strathy Wood and Strathy South wind farms, with multiple drainage lines present.

Overall, the heterogenous nature of peat depth across the Proposed Development indicates a highly modified and disturbed landscape which retains only small modified fragments of the original peat bodies which colonised the landscape. This is reflective of a loss of ecosystem services including the impairment of the peatlands ability to sequester and permanently store carbon.

5.1.3 Near Natural Features

No near natural features were observed from aerial imagery within the Proposed Development, but which are plentiful approximately 1-2 km to the east. Areas without evidence of drainage or erosion appear to be primarily modified by intensive rough grazing with extensive terracing of slopes and areas of puddling by livestock. Elsewhere alongside watercourses, bracken colonisation has occurred replacing peatland vegetation.

5.1.4 Artificial Drainage

The Proposed Development **(Annex B, Figure 9.4.2)** contains approximately 11.5 km of artificial drainage in the form of hill drains, these appear to be narrow and shallow (<0.5 m) and active.

Approximately 28 ha (60%) of peat areas lie under standing or felled plantation forestry with a dense network of feeder, collector drains in addition to furrows at approximately 1-2 m spacing. There appears to be small scale peat cutting within the Proposed Development with approximately 5 ha of the Proposed Development covered by peat cuts.

5.1.5 Peatland Erosion

Peat areas **(Annex B, Figure 9.4.2)** within the Proposed Development contain approximately 1.3 km of gulleys and peat banks that are hagged with a side face of exposed peat but with vegetated base reflecting active erosion and drainage. Vegetated gulleys, where peat has been recolonised, covers approximately 1.2 km where active erosion has ceased but drainage remains, these generally form part of larger hagg and micro-erosion complexes. Micro-erosion complexes cover approximately 1.2 ha of the site consisting of a mixture of bare peat and vegetated gulleys.

5.1.6 Other Indicators

Felled forestry areas **(Annex B, Figure 9.4.2)** have low density invasive conifer regeneration which is likely to be causing water level drawdown within areas impacted. Approximately 6.3 ha shows evidence of herbivore (sheep) terracing where repeated tracking has eroded slope peats into shallow terraces which is indicative of high grazing pressure.

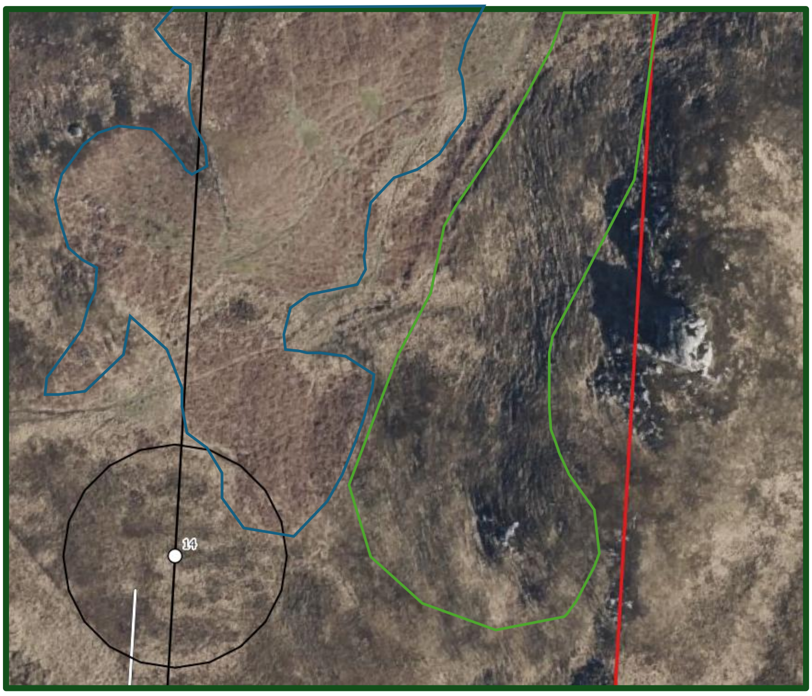


Photo 1 - Areas of herbivore terracing (green) and bracken colonisation (blue) close to Tower 14

6.0 Field Based Peatland Condition Assessment

To validate the observations made during the desk-based assessment and provide more detail on ground cover of key peatland species, a walkover peatland condition assessment was undertaken in March 2025. Whilst this period is characterised by a period of senescence (or dormant period) in vegetation in the Flow Country, the survey only considered vegetation to Plant Functional Type level which are distinguishable across the year.

6.1 Ecological Indicators

A key component of an active peatland are the species present, with the presence/absence and cover of different plant functional types an indication of the degree the peatland is modified from near natural conditions. The extent of plant functional types such as *Sphagnum* is often a good proxy for the height of the water table and therefore to what extent the peatland is still functional (e.g. still sequestering carbon and providing key ecosystem services). In contrast, negative indicators such as bare peat, heather, purple moor grass, which are not peatland mosses, reflect the degree of modification in the peatland. The extent of each plant functional type was assessed at 100 m intervals, at a 5 m radius using a modified DAFAR scale (dominant, abundant, locally abundant, scarce and absent) as shown in **Table B**. A modified scale was used as dominance of a single plant functional type is rare within peatland ecosystems, and therefore increased granularity is not considered useful above 50 % cover. This assessment is also not meant to replace more detailed NVC surveys but provide a basis to understand variability in peatland condition across the Proposed Development.

Table B - Adapted DAFOR scale used for vegetation cover estimation

ADAPTED DAFOR SCALE	COVER %
D = Dominant	50-100
A = Abundant	30-50
F = Locally Abundant	15-30
O = Occasional	5-15
R = Rare	0-5
A = Absent	0

6.1.1 *Sphagnum* Cover and Type

Sphagnum mosses are crucial indicators of peatland condition due to their unique ecological roles and sensitivity to environmental changes.

- Water Retention: Sphagnum mosses have a high water-holding capacity, which helps maintain the waterlogged conditions necessary for peat formation. A healthy cover of Sphagnum indicates good water retention and a stable water table.
- Carbon Sequestration: Sphagnum mosses contribute significantly to carbon sequestration in peatlands. Their presence suggests active peat formation and carbon storage, which are essential for mitigating climate change.
- Acidic Environment: Sphagnum mosses create and maintain acidic conditions in peatlands, which are necessary for the growth of other peat-forming species. A decline in Sphagnum cover can lead to changes in pH and the overall peatland ecosystem.
- Biodiversity: Sphagnum-dominated peatlands support a diverse range of plant and animal species. The abundance and diversity of Sphagnum species can reflect the overall biodiversity and health of the peatland.
- Indicator of Degradation: A reduction in Sphagnum cover often indicates peatland degradation due to factors like drainage, burning, or overgrazing.

Consequently, abundant or dominant sphagnum is likely to be a positive indicator of peatland condition, whereas below expected or absence of sphagnum is an indicator of degraded peatland conditions

Sphagnum cover was absent or rare within the area between Tower 1 to Tower 17. Where present *Sphagnum* was primarily comprised of isolated pockets of *Sphagnum capillofolium* which were dispersed enough that these could be avoided. For example, where ground investigation works had already been conducted across the Proposed Development, *Sphagnum* was generally absent. The only area where *Sphagnum* was locally abundant was within peat cuts close to the proposed permanent access track leading to Tower 19, where locally higher water tables created conditions to support *Sphagnum* colonisation by *Sphagnum Papillosum*. *Sphagnum* is generally replaced by non peat forming species of drier more nutrient tolerant species such as Feather Mosses across much of the area.

6.1.2 Sedge and Grass Cover

Cotton grass (*Eriophorum spp.*) can have several impacts on peatland condition[13]:

- **Nutrient Dynamics:** Cotton grass tends to deplete phosphorus and nitrogen from the peat, which can favour sphagnum forming species.
- **Decomposition Rates:** The litter from cotton grass decomposes more slowly under the anoxic conditions typical of peatlands. This slow decomposition does not significantly enhance microbial biomass or activity.
- **Carbon Storage**: Despite its presence, cotton grass does not necessarily increase organic matter decomposition. Therefore, its spread is unlikely to negatively impact the peatland's function as a carbon sink.

Overall, while cotton grass can influence nutrient cycling and vegetation structure, it does not significantly alter the fundamental carbon storage function of peatlands and can be classed as a neutral/positive peatland condition indicator. However, conversely Molinia caerulea, commonly known as purple moor grass, can significantly impact peatland condition in several ways:

- **Vegetation Dominance:** Molinia can outcompete and dominate other peatland species, particularly Sphagnum mosses, which are crucial for peat formation. This shift can reduce the overall biodiversity of the peatland.
- **Nutrient Cycling**: Molinia has a higher nutrient content in its litter compared to Sphagnum. This can lead to faster decomposition rates and increased nutrient cycling, which may alter the peatland's nutrient dynamics.
- **Hydrological Changes:** The dense root systems of Molinia can affect the hydrology of peatlands by altering water retention and flow patterns. This can lead to drier conditions, which are less favourable for peat formation.
- **Carbon Storage:** The invasion of Molinia can reduce the carbon sink capacity of peatlands. The faster decomposition of Molinia litter compared to Sphagnum can result in higher carbon emissions.
- **Fire Risk:** Molinia-dominated peatlands can be more susceptible to fires, especially during dry periods. Fires can cause significant damage to peatlands, leading to the loss of vegetation and peat soil.

Molinia caerulea (commonly known as purple moor grass) is dominant in the area between Towers 5 and 12 with only rare to occasional occurrences of more common peatland species such as the cotton grasses (*Eriophorum vaginatum* and *angustifolium*) and Deer Grass (*Tricophorum germanicum*). Although *Molinia* reduces northwards, it remains locally abundant until Tower 17. The area of Tower 18 and Tower 19 shows more typical Flow Country sedge and grass assemblages with locally abundant *Eriophorum vaginatum* and *Tricophorum germanicum.* Within forestry, grass and sedge cover is largely absent with cover dominated by needle litter and non peat forming mosses. Felled forestry areas (between Towers 2 to 4) appear to have been largely colonised by a monoculture of *Molinia*.

Overall, whilst *Molinia Caerulea* is a natural component of the blanket peatlands within the Flow Country, it is usually found as an accessory. The dominance of *Molinia* and its exclusion of more commonly found peat species is an indication that the area of the Proposed Development has been subject to prolonged and continuing disturbance, likely as a result of drainage, historic muirburn and grazing pressures. *Molinia*, once dominant, is difficult to control making restoration more difficult and costly. Only the very north of the Proposed Development shows a more diverse sedge and grass assemblage, however even this area

[13] Kaštovská, E., Straková, P., Edwards, K. *et al.* Cotton-Grass and Blueberry have Opposite Effect on Peat Characteristics and Nutrient Transformation in Peatland. *Ecosystems* **21**, 443–458 (2018).

remains fragmented due to historic peat cutting and underlying topographic controls such as steeper slopes of low peat thickness.

Photo 2 – Dominant *Molinia caerulea* and *Myrica gale* at Towers 10 (left photo) and 6 (right photo)

6.1.3 Shrub Cover

Common Heather can significantly impact peatland condition in various ways:

- **Vegetation Dominance**: Heather can become dominant in peatlands, especially when not managed properly. This dominance can suppress the growth of other important peat-forming species like Sphagnum mosses.
- **Hydrological Changes:** Dense heather cover can alter the hydrology of peatlands by reducing water retention and increasing evapotranspiration. This can lead to drier conditions, which are less favourable for peat formation.
- **Fire Risk:** Unmanaged heather can increase the risk of wildfires, especially during warmer and drier periods. Wildfires can cause significant damage to peatlands, leading to the loss of vegetation and peat soil.
- **Biodiversity:** While heather can provide habitat for certain species, its dominance can reduce overall biodiversity by limiting the variety of plant species that can thrive in peatlands.
- **Carbon Storage**: Heather-dominated peatlands may have reduced carbon sequestration capabilities compared to those with a diverse mix of peat-forming species. This is because heather does not contribute to peat formation as effectively as Sphagnum mosses.

Common Heather (*Calluna vulgaris*) is present at locally abundant to abundant cover between Towers 12 to 19 and is generally co-dominant with *Molinia caerulea* although there is increasing cover of the cotton grasses to the north. Between Towers 5 and 12 it is largely replaced by large *Myrica gale* (Bog Myrtle) stands, as can be seen in **Photo 2.** *Myrica gale* is present as unusually tall (0.7 m) stands (within a Flow Country context) and appears to largely outcompete heather when present.

Overall, the dominance of vascular shrubs over non-vascular *Sphagnum* species is more typical of dry heath habitat and signifies the conversion of peatland habitats to drier forms. It has resulted in a loss of function and replacement of peat forming species with more drought tolerant alternatives. Further, it appears that when lost it is replaced by a low diversity *Molinia caerulea* and *Myrica gale* community with areas of bare peat and tussocks indicating complete loss of peatland function in these areas.

6.1.4 Other Cover

Bare peat is a significant indicator of peatland condition[14] and often signals degradation as it indicates:

- **Lowered Water Table**: The presence of bare peat usually indicates that the water table has dropped. This drying out of the peatland can lead to further degradation.
- **Erosion Susceptibility**: Without vegetation cover, bare peat is highly susceptible to wind and water erosion. This can lead to the formation of peat hags and gullies, further destabilising the peatland.
- **Vegetation Loss:** The loss of surface vegetation, especially mosses like Sphagnum, is a common precursor to the development of bare peat. This loss reduces the peatland's ability to retain water and support typical bog species.
- **Indicator of Modification**: Extensive areas of bare peat are often found in highly modified peatlands. These areas are less likely to function effectively as carbon sinks and are more prone to further degradation.

Non-native forestry can have several significant impacts on peatlands:

- **Hydrology Disruption**: Non-native trees, such as Sitka spruce and lodgepole pine, often require drainage to thrive. This drainage can lower the water table in peatlands, leading to drier conditions that are detrimental to peat formation and maintenance1.
- **Carbon Release**: Peatlands are crucial carbon sinks, storing vast amounts of carbon. The disturbance caused by planting and maintaining non-native forests can lead to the release of stored carbon, contributing to greenhouse gas emissions.
- **Biodiversity Loss**: The introduction of non-native trees can alter the native plant and animal communities. Species that are adapted to open, wet peatland environments may decline, while forest species may increase.
- **Soil Erosion and Degradation**: The physical disturbance from forestry operations, including planting and harvesting, can lead to soil erosion and degradation. This can further impact the hydrology and carbon storage capacity of peatlands.
- **Restoration Challenges**: Once non-native forests are established, restoring the peatland to its natural state can be challenging and resource-intensive. It often requires removing the trees, blocking drainage channels, and re-establishing native vegetation

[14] https://www.nature.scot/sites/default/files/2023-02/Guidance-Peatland-Action-Peatland-Condition-Assessment-Guide-A1916874.pdf

Bare peat is present at the rare to occasional level and is largely associated with the impacts of the 2019 Flow Country wildfire and historic grazing which has terraced steeper slopes.

Forested areas comprise Sitka Spruce and Lodgepole Pine with limited under canopy cover. Within felled forestry and adjacent to the forestry areas of conifer regeneration, colonisation of open peat areas is observed. This is particularly notable close to Towers 2 to 4 and at Tower 18 **(Photo 3).**

Between Towers 5 and 17 outcrop and scree can be seen protruding from the soil surface in many locations at rare to occasional cover.

Photo 3 - Conifer Colonisation at Tower 18

6.2 Peatland Morphology and Hydrology

6.2.1 Peatland Microtopography

Peatland microtopography refers to the small-scale variations in surface elevation within peatlands, which significantly influence their ecological and hydrological processes. The main features of peatland microtopography include:

- **Hummocks**: These are raised areas that are typically drier and support vegetation like dwarf shrubs and certain mosses. Hummocks have higher carbon dioxide (CO_2) fluxes due to their aerobic conditions.
- **Hollows**: These are lower, wetter areas that often remain saturated. They are dominated by graminoids and Sphagnum mosses, which thrive in these conditions. Hollows are associated with higher methane (CH_4) emissions due to anaerobic decomposition.

- **Lawn**: Intermediate areas between hummocks and hollows, which can support a mix of vegetation types depending on the water table level. Low lawn is likely dominated by graminoids and Sphagnum mosses whereas high lawn is likely more dominated by dwarf shrubs and drier sphagnum species. These are often the most common features on blanket peatland.
- **Pools**: Permanently inundated parts of the peatland with free floating sphagnum species and bog bean. These are often important hotspots for invertebrates such as dragonflies.

Microtopography affects various ecological processes, including:

- **Water Table Dynamics**: The position of the water table relative to the surface influences the types of vegetation that can thrive and the rates of decomposition and carbon cycling.
- **Carbon Storage and Emissions**: The balance between CO_2 and CH_4 emissions is influenced by the microtopographic features, with hummocks generally emitting more CO_2 and hollows more CH_4.
- **Biodiversity**: Different microtopographic features support different plant and animal communities, contributing to the overall biodiversity of peatlands.

Peatland microtopography is largely absent from the Proposed Development, where it has largely been replaced by dry high lawn communities or lost entirely through extensive grazing. The only area where partial microtopography can be found is close to Tower 19 within a colonised peat cut where *Sphagnum* hummocks, high and low lawn can be found. However, this is a relatively isolated example of microtopography which is otherwise a common feature within the Flow Country WHS. The lack of peatland microtopography across the Proposed Development indicates that the peatland is unlikely to be in active peat forming condition, and also does not have the diversity of function and water levels due to artificial drainage and peat cutting which promote the biodiverse microhabitats present within a near natural peatland.

6.2.2 Erosion and Drainage Features

Shallow erosion features on peatland are dominated by gulley systems and micro-erosion. As mapped previously (see **Annex B, Figure 9.4.2**), these are primarily in the form of vegetated and hagged gulleys and banks. Gulleys are found both in areas of remaining peatland vegetation and in areas where peatland vegetation has been replaced by dry heath/wet grassland species. Micro-erosion is generally limited to remaining peatland habitat areas, which are located on deeper peat. Active drainage is found across the study area and these tend to be shallow and narrow and appear to be generally active. These are generally associated with peat cutting, hill drainage or associated with the existing access track which largely runs adjacent to the Proposed Development.

Forestry areas are subject to intensive drainage by furrows, feeder and collector drains as well as the drying impact from evapo-transpirative losses from non-native conifers. Where felled, vegetation cover is limited, likely increasing erosional losses through watercourses and by wind erosion.

Overall, field observation confirmed that much of the Proposed Development site is subject to drainage by erosion features or artificial features, confirming analysis from aerial imagery. This is likely to have historically, and is currently, impairing peatland function and causing longstanding decline of peatland habitat within the Proposed Development.

6.2.3 Peatland Restoration

Peatland restoration is absent from the Proposed Development.

6.2.4 Surface Wetness

Surface wetness across the area of the Proposed Development was generally dry due to the high degree of drainage and the natural position of the Proposed Development. As the surveys were conducted in late winter when water levels would be expected to be at their highest, this would indicate water levels are suppressed compared to an equivalent near natural peatland.

6.2.5 Surface Peat Density

All areas of the Proposed Development have either hard or firm ground conditions indicating high peat densities. High peat density is a sign of oxidation and compaction of the peat surface due to the impacts of water withdrawal due to drainage as well as livestock pressures. It also reduces the resilience of peat to extreme weather events such as drought. Therefore, widespread high density peats are likely to reflect longstanding loss of peatland function and peat forming conditions. The entire area of the Proposed Development is comprised of highly humified dense peats indicating longstanding drainage impacts either by peat cutting, drainage, agriculture and plantation forestry.

6.3 Land-use Pressures

6.3.1 Grazing Pressures

Grazing, browsing and trampling by native wild animals are components of natural bog ecosystems in the UK but unsustainable levels of grazing and trampling from grazing livestock (sheep, cattle and deer) can have adverse effects on the peatland ecosystem.

The immediate impacts on the blanket peatland result from physical damage caused by trampling, grazing, and urine/faecal deposits on vegetation and bog surfaces. These actions create tracks and small areas of exposed peat, which can become focal points for erosion. Over the long term, there may be a reduction in the annual biomass retained in the living surface layer (both above and below ground). At particular risk is *sphagnum spp.* which are sensitive to trampling and cannot withstand more than two trampling events in a year, taking multiple years to recover. In the long term, persistent high stocking levels lead to the loss of peat-forming vegetation and subsequent drying out of the bog surface. In sensitive areas, this results in the complete loss of the acrotelm layer, colonisation by non-peat-forming species on the drier surface, the emergence of bare peat patches, and an increased risk of erosion.

When present at an appropriate density, wild deer contribute to maintaining natural habitats in good condition and can yield positive effects. However, since the 1960’s red deer counts nationally within Scotland have trebled and whilst Scotland’s population has stabilised over the last 20 years, it is currently at a historic high and has had severe consequences for both native forestry and blanket peatland habitats. Specifically, within a blanket peatland context, high deer densities result in soil compaction, gully erosion and creation, peatland fertilisation through urine, as well as grazing pressure on peatland species. Trampling is also likely to be exacerbated by freeze-thaw processes within more exposed terrain. Grazing can significantly impact the condition of peatlands in several ways[15]:

- **Vegetation Changes**: Over-grazing can suppress typical peatland vegetation, leading to a reduction in species like Sphagnum mosses, which are crucial for peat formation. This can result in a shift towards more grazing-tolerant species, such as grasses and shrubs.
- **Soil Compaction**: The trampling by livestock can compact the peat soil, reducing its ability to retain water and increasing the risk of erosion.
- **Hydrological Alterations**: Grazing can alter the hydrology of peatlands by damaging the vegetation that helps maintain the water table. This can lead to drier conditions, further degrading the peatland.
- **Carbon Release**: Disturbance from grazing can lead to the release of stored carbon from the peat, contributing to greenhouse gas emissions.
- **Biodiversity Impact**: High grazing levels can reduce the diversity of plant and animal species in peatlands, impacting the overall ecosystem health.

Grazing evidence by sheep and deer is present across the Proposed Development primarily as evidence of footprints, scats and actual sightings. Where present evidence of scrabbling and puddling is frequent, especially where feeders are placed. In areas with higher sheep densities *Molinia* tussocks and grazed heather predominate, replacing peatland and heath species. Whilst it is likely that sheep numbers have reduced over time within the Proposed Development site, livestock continue to have a negative impact on peatland condition.

6.3.2 Fire Evidence

Evidence of fire is high across the footprint of the 2019 wildfire with widespread charring and loss of vegetation. Revegetation is dominated by juvenile heather (5-10 cm) which appears to be stunted. Recovery of other species appears to be slower with negligible recovery of keystone peatland species such as *Sphagnum*. Peat cuts show evidence of smouldering and cracking in response to the fires, indicating deep burning of the peat surface with peat loss in excess of 5 cm in some areas. Relic dead *Sphagnum* and *Racomitrium* hummocks remain, however these do not show any sign of regrowth or recolonisation indicating loss of the seed bank and low resilience. The peat surface also appears to have become highly hydrophobic which has likely compromised infiltration of water deeper within the remaining peat surface and will hinder natural recovery. Where water tables were locally higher, vegetation cover is higher but is generally dominated by *Molinia caerulea* tussocks and heather reflecting only the loss of surface biomass. Overall observations within the wildfire footprint match those in *Andersen et al.* (2024)[16] within the Melvich Common Grazing area in that there has been very limited recovery of peatland species and further development of a monoculture of heather and *Molinia* in damaged areas of peatland within the Flow Country wildfire footprint since 2019 unlike areas in better condition to the south.

[15] Littlewood, N., Anderson, P., Artz, R., Bragg, O., Lunt, P., Marrs, R., 2010 Peatland Biodiversity - A Technical Review for the IUCN Peatland Program https://www.iucn-uk-peatlandprogramme.org/sites/www.iucn-ukpeatlandprogramme.org/files/Review%20Peatland%20Biodiversity%2C%20June%202011%20Final.pdf
[16] Andersen, R., Fernandez-Garcia, P., Martin-Walker, A. *et al.* Blanket bog vegetation response to wildfire and drainage suggests resilience to low severity, infrequent burning. *fire ecol* 20, 26 (2024). https://doi.org/10.1186/s42408-024-00256-0

6.3.3 Other Pressures

Non-native conifer colonisation of open peat areas was observed close to plantation forestry within ca.1 km buffer zone close to Tower 18 which is likely to adversely affect peatland function through evapo-transpirative losses, shading, pollen and needle fertilisation.

7.0 Peatland Condition Assessment

Key peatland condition metrics have been mapped, through a desk-based review, supported by a detailed peat condition survey undertaken in March 2025 (see **Annex B, Figure 9.4.3 and 9.4.4)**.

Peatland within the Proposed Development is predominantly comprised of peatland in a **Drained Artificial Condition** with approximately 43 ha (92% of the peat areas) in this class. In open areas this is primarily associated with active hill drains, ATV tracking and abandoned peat cuts. In afforested areas this is associated with standing Sitka Spruce and Lodgepole Pine with associated furrows, feeder and collector drains as well as felled areas of forestry (11.6 ha or 26% of peat areas).

A further 16.5 ha (35%) of peat areas within the Proposed Development are comprised of peatland in the **Drained Hagg/Gulley Class.** This is associated with predominantly hagged gulleys, micro-erosion complexes and vegetated gulleys. There is significant overlap between **Drained Hagg/Gulley** and **Drained Artificial** Peat Condition Classes.

Approximately 0.02 ha (or <1% of peatland present) can be defined as **Actively Eroding**, the most degraded peat condition class with this largely accounted for by hagged gulleys. It is likely that micro-erosion complexes contain actively eroding areas however these were not quantified within this report.

The remaining area (3.6 ha or 7.8%) of peatland in the Proposed Development is classified as **Modified.** It is likely that this is highly modified as peatland species have been replaced by grasses such as *Molinia caerulea*. It is likely that these areas have high historic herbivore impacts include trampling, puddling and fertilisation by sheep which has contributed to the conversion of the peatland to wet grassland habitat.

Overall, peat within the Proposed Development is heavily drained, subject to erosion and high historical grazing impacts with widespread replacement of peatland species with *Molinia caerulea* and bracken.

8.0 Infrastructure Assessment

The following section, alongside the detailed assessment in **Annex A,** presents an overview of the peatland impacts as a result of infrastructure proposed as part of the Proposed Development.

8.1 Steel Lattice Towers / Trident Wood Poles

Thirteen out of 19 steel lattice towers (Towers 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 16, 18) and both trident wood poles (128A and 129A) avoid peat (>0.5 m) completely. Of these, Towers 2, 3 and 4 lie within felled forestry with high drainage densities from furrows, feeder and collected drains as well as low density conifer regeneration. Towers 5, 7, 11, 13, 15, 16 and 18 lie within 30 m of active drainage either of infrastructure drains from the pre-existing access track, peat cuttings or hill drains. Towers 8 and 9 lie adjacent to erosion features such as hagged gulleys and micro-erosion. Tower 6 lies on exposed bedrock. *Sphagnum spp.* are largely absent from all of the above locations, with northern towers (Towers 14 to 16) dominated by *Calluna vulgaris*, *Molinia caerulea* and *Tricophorum germanicum*. Towers 5 to 13 are generally domininated by *Molinia caerulea* with varying amounts of *Calluna vulgaris* and *Myrica gale*. Evidence of burning including charred dead hummocks and peat banks, tussocking and burnt vegetation/bare peat become increasingly common to the south of Tower 13. Consequently, as these towers avoid peat and are located within areas subject to drainage and erosion, which are by definition non-peat forming, it is considered peatland impacts are likely to be **Negligible** at these locations.

The peatland impacts of the remaining six steel lattice towers of the Proposed Development are discussed below:

Tower 1 lies outside the WHS / SAC / SSSI and within a small area of open peatland surrounded by other land uses. It lies within the area of influence of existing forestry drainage and drainage for the adjacent former residential property (now demolished) and existing access track, as well as an area of micro-erosion and hagged gulleys. Peatland within the surrounding area of Tower 1 falls into the **Drained Artificial** and **Drained Hagg Gulley** Condition Class. Whilst Tower 1 lies within deep peat, with mean peat depth recorded at 1.13 m deep, the intensive drainage and land use surrounding the tower indicate peat formation has ceased at this location, and it is in active decline. Therefore, it is considered that peatland impacts are **Low-Moderate** at this location, to take account of the deep peat. Impacts are likely able to be minimised during the construction phase through micro-siting and through following construction best practice guidance, as outlined in Volume 4, Appendix 9.2 Outline PMP of the 2024 EIA Report.

Tower 10 lies partially within an isolated area of peat with depth 0.65 m within the Flow Country WHS / SAC / SSSI. The tower lies within 30 m of active drains and hagged gulleys. The tower has areas of puddling by sheep which have exposed bare peat. This places the tower within the **Drained Artificial** and **Drained Hagg/Gulley** Condition Class. As such it is likely that infrastructure development is likely to have **Low** impacts on peatland within the vicinity.

Tower 12 lies within an area of peat which has been subject to historical peat cutting with mean peat depth of 0.67 m. The tower lies within a vegetated peat cut although the peat banks remain exposed. Both the peat banks and cuts remain and are subject to charring of the peat surface associated with the 2019 Flow Country wildfire. This places the tower within the **Drained Artificial** Condition Class and as such, it is likely that infrastructure development is likely to have **Low** impact on peatland within the vicinity.

Tower 14 lies within an area of peat which is dominated by *Molinia caerulea* and *Calluna vulgaris*. It lies close to active drainage in the form of hill drains and shows evidence of charring as a result of the 2019 Flow Country wildfire. The location also lacks *Sphagnum* or microtopography indicating active peatland formation is not present. The condition at this tower can be characterised as **Drained Artificial** Condition Class**,** and as such, it is likely that infrastructure development will have a **Low** impact on peat in the area.

Tower 17 lies within an area of peat which is dominated by *Molinia caerulea* and *Calluna vulgaris*. It lies close to active drainage in the form of hill drains and shows evidence of charring as a result of the 2019 Flow Country wildfire. The location also lacks *Sphagnum* or microtopography indicating active peatland formation is not present. The condition at this tower can be characterised as **Drained Artificial** Condition Class and as such it is likely that infrastructure development will have a **Low** impact on peat in the area.

Tower 19 lies within an area of peat which has been subject to historical peat cutting with mean peat depth 0.67 m. The tower lies within a vegetated peat cut although the peat banks remain exposed. Both the peat banks and cuts remain. The area has rare *Sphagnum* and is dominated by *Calluna vulgaris* and *Eriophorum spp.* This places the tower within the **Drained Artificial** Condition Class and as such it is likely that infrastructure development is likely to have **Low impact** on peat in the area.

8.2 Temporary and Permanent Access Tracks

The following section presents an overview of the peatland impacts as a result of the track infrastructure proposed as part of the Proposed Development.

Permanent Access Track to Tower 1 and CSE Compound

The proposed permanent access track to Tower 1 and the CSE compound lies outside the WHS / SAC / SSSI and within a small area of open peatland surrounded by other land uses. The track lies within the area of influence of existing forestry drainage, drainage for the (now demolished) adjacent residential property and drainage for the existing access track, as well as an area of microerosion and hagged gulleys. Peatland within the surrounding area of the proposed access track falls into the **Drained Artificial and Drained Hagg Gulley** Condition Class. Whilst the proposed access track lies within deep peat, with mean peat depth recorded as 1.13 m deep, the intensive drainage and land use surrounding the track indicate peat formation has ceased at this location and it is in active decline. Therefore, it is considered that peatland impacts from the proposed permanent access track are **Low** at this location.

Permanent Access Track to Towers 2 to 4

The proposed permanent access track to Towers 2 to 4 lie within felled forestry with high drainage densities from furrows, feeder and collected drains, as well as low density conifer regeneration. The area has been subject to intensive management through drainage and compaction by planting of non-native conifers. The permanent track overlies deep peat (>1m) in some areas, however this is located on formerly and currently afforested peat, and is still showing the impacts of forestry extraction and forestry machinery. Peatland within the surrounding area of the proposed permanent access track falls into the **Drained Artificial** Condition Class. It should also be possible to mitigate impacts through the use of floating roads in deeper areas. Consequently, with appropriate mitigations, and due to the highly modified nature of peats due to plantation forestry, it is considered that peatland impacts are **Low** from this infrastructure.

Permanent Access Track to Tower 5

The proposed permanent access track to Tower 5 lies on a steep slope with thin peat and mineral soils along the proposed track. It also lies within the area of influence of the adjacent existing access track. The vegetation is dominated by *Molinia caerulea* and *Myrica gale* with lesser amounts of *Calluna vulgaris*. The track lies within peatland in the Drained Artificial and Drained Hagg/Gulley Classes. Consequently, it is considered that peatland impacts are **Negligible** from this permanent infrastructure.

Temporary Access Tracks to Towers 6 and 7

The proposed temporary access tracks to Towers 6 and 7 lie within former peat cuts infilled with extensive and tall *Myrica gale* (0.7 m) with *Molinia caerulea*. Areas of bare peat are also common, alongside evidence of tracking by herbivores. *Sphagnum spp*. are absent from the footprint of the proposed access track. The proposed access track also lies at the base of a steep hill with exposed bedrock. Consequently, overall condition in this track segment is a mixture of **Drained Artificial and Drained Hagg/Gulley** and it is considered that peatland impacts are **Negligible** from this temporary infrastructure.

Temporary Access Tracks to Towers 8 to 11

The proposed temporary access track to Towers 8 to 11 lie within an area of patchy peat coverage with dominant *Molinia*. Areas of bare peat are also common alongside evidence of tracking by herbivores. Drains and vegetated gulleys are also present. *Sphagnum spp*. are absent from the footprint of the proposed access track. The proposed access track also lies at the base of a steep hill with exposed bedrock. The vegetation is dominated by *Molinia* *caerulea* and *Myrica gale* with lesser amounts of *Calluna vulgaris*. Consequently, due to the patchy nature of peat and **Drained Artificial** and **Drained Hagg/Gulley** condition it is considered that peatland impacts are **Negligible** from this temporary infrastructure.

Temporary Access Track between Towers 11 and 12

The proposed temporary access track to Towers 11 and12 largely avoids peat and the limited areas crossed are within the **Drained Artificial** Condition Class (e.g. within 30 m of active drainage). Vegetation is also dominated by *Molinia caerulea* and vascular plants such as *Calluna vulgaris* and *Myrica gale* typical of low diversity dry heath ecosystems. Consequently, it is considered that peatland impacts are **Negligible** from this temporary infrastructure.

Temporary Access Track to Tower 13 and 14

The proposed temporary access track to Towers 13 and 14 largely avoids peat and the limited areas crossed are within the **Drained Artificial** Condition Class (e.g. within 30 m of active drainage in this case from hill drains and peat-cutting). Vegetation is also dominated by *Molinia caerulea* and vascular plants such as *Calluna vulgaris* and *Myrica gale* typical of low diversity dry heath. Consequently, it is considered that peatland impacts are **Negligible** from this temporary infrastructure.

Permanent and Temporary Access Track to Towers 15 to 17

The proposed temporary (and short spur of permanent) access track leading to Towers 15 to 17 largely avoids peat and the limited areas crossed are within the **Drained Artificial** Condition Class (e.g. within 30 m of active drainage). Vegetation is also dominated by *Molinia caerulea* and vascular plants such as *Calluna vulgaris* and *Myrica gale* typical of modified dry heath. Consequently, it is considered that peatland impacts are **Negligible** from this infrastructure

Permanent Access Track to Tower 18

The proposed permanent access track to Tower 18 lies mostly on mineral and peaty soils associated with slopes and as such is generally dominated by vascular plant species such as *Calluna vulgaris, Erica tetralix* and *Myrica gale*, alongside a mix of *Eriophorum spp.* and *Molinia caerulea,* as well as conifer regen in places. *Sphagnum,* where present at all, is generally found within artificial hollows created by peat cutting. Overall condition over this section of track can be considered to be within the **Drained Artificial** or **Modified** Condition Class. The track lies largely with a mixture of modified wet and dry heath with low peat thickness which has been subject to historical peat cutting and conifer colonisation and therefore peatland impacts from the permanent infrastructure, are likely to be **Low.**

Permanent Access Track to Tower 19

The proposed permanent access track to Tower 19 lies within an area of peat which has been subject to historical peat cutting. The permanent access track lies largely within vegetated peat cuts although the peat banks remain exposed. Both the peat banks and cuts remain. The area has occasional *Sphagnum* primarily of *Sphagnum capillofolium/fallax,* indicating drier conditions, and is dominated by *Calluna vulgaris* and *Eriophorum spp*. However, in some peat cuts colonisation of peat forming *Sphagnum*s such as *Sphagnum papillosum* and partial peat microtopography is present indicating more functional conditions. These are in general associated with where drainage is impeded within abandoned peat cuts and where present should be avoided.

This places the access within the **Drained Artificial** Condition Class, and as such, it is likely that infrastructure development is likely to have **Moderate** impact on peatland within the vicinity, if mitigation is not carried out. This is likely to be achieved through the use of existing tracks present across the site which appear to have much lower peatland diversity and localised impacts to areas which have already been modified, avoidance of areas with peat forming *Sphagnum*s and the use of floating roads where appropriate. With the relevant mitigations the access track is likely to have low impact on peatland within its footprint. Impacts are likely able to be further minimised during the construction phase through micro-siting and through following best practice guidance, as outlined in Volume 4, Appendix 9.2 Outline PMP, in the 2024 EIA Report.

8.3 Proposed Cable Sealing End (CSE) Compound

The proposed CSE Compound lies outside the WHS / SAC / SSSI and within a small area of open peatland surrounded by other land uses. It lies within the area of influence of existing forestry drainage and drainage for the (now demolished) adjacent residential property and access road as well as an area of microerosion and hagged gulleys. Peatland within the surrounding area falls into the **Drained Artificial** and **Drained Hagg Gulley** Condition Class. Whilst the CSE lies within deep peat 1.13m deep the intensive drainage and landuse surrounding the tower indicate peat formation has ceased at this location and it is in active decline. Therefore, it is considered that peatland impacts from the proposed are **Low-Moderate** at this location to take account of the deep peat at this location. Impacts are likely able to be minimised during the construction phase through micro siting and through following best practice guidance as outlined in Volume 4, Appendix 9.2 Outline PMP, in the 2024 EIA Report.

8.4 Infrastructure Overview

Overall, infrastructure of the Proposed Development largely lies on shallow peaty soils and avoids peat (>0.5 m), however where unavoidable, it has been identified that peatland falls within **Drained Artificial and Drained Hagg Gulley** (92%) or **Modified** Condition Class (8%) (in order of percentage cover). This comprises of fragments of blanket bog peatland, which have been largely converted to dry heath.

No near natural condition peatland was observed. Where peat forming vegetation and microtopography is present, it is isolated to a single area associated with former peat cutting activities and lies within close proximity of low diversity drained peatland.

Peatland morphology is present as a series of fragments isolated by historic drainage and peat cutting. The fragments are largely topographically constrained (lying generally at the base of slopes) and are hydrologically separated from the wider SSSI / SAC by steep slopes, and natural drainage or lies within the area of influence of existing infrastructure (forestry and tracks). As such it is unlikely that any development would hydrologically impact the wider SSSI / SAC, particularly given the limited footprint of the proposed infrastructure.

Priority Peatland Habitat

NatureScot guidance *'Advising on peatland, carbon-rich soils and priority peatland habitats in development management'* (Published June 2023, revised November 2023) provides information to define habitats likely to be considered 'priority peatland habitat' as shown in **Table C**.

Based on available habitat and botanical survey data for the Proposed Development, bog habitats are present as hydrologically isolated and highly modified fragments across the area of the Proposed Development, and whilst these are largely avoided, it will not be possible to avoid these habitats entirely, either for towers or other permanent and temporary infrastructure, therefore a consideration of whether the Proposed Development meets the threshold for priority habitat is needed.

NatureScot's scoping criteria for priority peatland habitat is addressed for the Proposed Development Error! Reference source not found. below. Overall, it is not considered that any o f the peatland habitat meets the criteria for priority peatland habitat on the basis of the observations made and the fragmentary and modified nature of the peatland habitat within the area of the Proposed Development.

Table C – Table of NatureScot Scoping Criteria for Priority Peatland Habitat.

NatureScot Scoping Criteria	Proposed Development Specific Commentary
Montane Bog – Presence of blanket peatland above 600 m	Not applicable, all peatland below 600 m
Blanket Bog >25 ha	The study area contains approximately 46 ha of discontinuous blanket bog peatland, of which the largest fragment is 20 ha with the majority of peat areas <1 ha.
Does the Proposed Development footprint and/or the wider area of blanket bog of which it is a part, support vegetation capable of forming peat?	The Proposed Development area contains predominantly *Sphagnum capillifolium and fallax* at low cover densities. These species are also found in dry and wet heath e.g. non peat forming environments. Small isolated pockets of peat-forming *Sphagnum* are rarely present on-site such as *Sphagnum papillosum, except for close to the proposed access track to Tower 18*. Assemblages are generally low diversity modified dry heath vegetation, which is not peat forming and in many areas comprises dominant *Molinia caerulea* with either *Calluna vulgaris or Myrica gale.*
Does the Proposed Development footprint (with a buffer of 250 m) support two or more of the following?	No, within the Proposed Development the following has been confirmed: ➢ **Low frequency of drains and peat cutting:** No, there is extensive artificial drainage, with peat cuts and hill drains ➢ **Presence of plant species indicating peat formation capability:** rare occurrences of peat forming species such as *Sphagnum palustre, subnitens, papillosum*, within wetter former peat cuts such as where hyper-localised wetter conditions persist otherwise *Sphagnum* is generally absent or rare and dominated by *Sphagnum capillofolium and fallax.*

NatureScot Scoping Criteria	Proposed Development Specific Commentary
	➢ **An area of natural surface pattern:** No, microtopography is almost entirely absent with the exception of a very localised area within peat cuts close to Tower 18 associated with peat cut colonisation. ➢ **Absence of invasion by woodland or scrub:** Heather and dry heath colonisation of deep peat areas associated with historic burning of the site. Localised areas of conifer regen and former plantation forestry between Towers 2-4
Does the Proposed Development footprint (with a buffer of 250 m) support one or more of the following?	➢ **An abundance of *Sphagnum*-rich ridges:** *Sphagnum* rich ridges absent ➢ **Ridges of *Sphagnum - Betula nana***: None ➢ **Hummocks of *S. fuscum* or *S. austinii***: No *fuscum* or *austinii* noted during NVC or Peatland condition Surveys ➢ **Peat mounds:** Not present onsite ➢ **Hollows of *Sphagnum* or bare peat: *Rhynchospora fusca*** – *Sphagnum* hollows rarely present and often associated with colonisation of peat cuts

9.0 Conclusions

The Proposed Development is in an area of peatland that has been heavily affected by grazing, drainage, peat cutting, and afforestation. The peatland is mostly dry and has high peat density. Peat-forming plants are rare, and the vegetation mainly consists of drought-tolerant species. The area has also been impacted by the 2019 Flow Country wildfire, which slowed recovery and replaced peat-forming plants with non-peat-forming ones.

As such the site of the Proposed Development is generally within a **Drained Artificial** Condition indicating it is not actively sequestering carbon and as such impacts from development are likely to be **Low**.

Annex A – Infrastructure Overview

Peatland Condition Assessment

Strathy Wood Wind Farm Grid Connection: Additional Information

SSEN Transmission

SLR Project No.: 428.013137.00001

Infrastructure	Soil Type	WHS Location	Condition Class	Sphagnum	>1 Sphag spp.	SphagType	Microtopography	Pools	Density	Soil Moisture	Burning	Grazing	Erosion	Bare Peat	Molinia C.	C. Vulgaris	Active Drains	Peat Cutting	Foresty	Pasture
Tower 1	Peat >0.5m	No	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	None	High Evidence	Vegetated Gulleys, Hagged Gulleys	Occasional	Dominant	Abundant	Yes	Nearby	Adjacent foresty	Rough Grazing
Tower 2	Organic Rich Soil (<0.5m)	No	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	None	High Evidence	None	Occasional	Dominant	Occassional	Yes	None	Plantation Felled	None
Tower 3	Organic Rich Soil (<0.5m)	No	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	None	High Evidence	None	Occasional	Dominant	Occassional	Yes	None	Plantation Felled	None
Tower 4	Organic Rich Soil (<0.5m)	No	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	None	High Evidence	None	Occasional	Dominant	Occassional	Yes	None	Plantation Felled	None
Tower 5	Organic Rich Soil (<0.5m)	No	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	High Evidence	High Evidence	Vegetated Gulleys, Hagged Gulleys	Occasional	Dominant	Occassional	Yes	None	None	None
Tower 6	Organic Rich Soil (<0.5m)	Yes	Modified	Absent	No	N/A	None	None	Hard	Dry	High Evidence	High Evidence	Vegetated Gulleys, Hagged Gulleys	Occasional	Dominant	Occassional	Yes	None	None	Rough Grazing
Tower 7	Organic Rich Soil (<0.5m)	Yes	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	High Evidence	High Evidence	Vegetated Gulleys, Hagged Gulleys	Occasional	Dominant	Occassional	Yes	None	None	Rough Grazing
Tower 8	Organic Rich Soil (<0.5m)	Yes	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	High Evidence	High Evidence	Vegetated Gulleys, Hagged Gulleys	Occasional	Dominant	Abundant	Yes	None	None	Rough Grazing
Tower 9	Organic Rich Soil (<0.5m)	Yes	Drained Hagg Gulley	Absent	No	N/A	None	None	Hard	Dry	High Evidence	High Evidence	Vegetated Gulleys, Hagged Gulleys	Occasional	Dominant	Abundant	Yes	None	None	Rough Grazing
Tower 10	Peat >0.5m	Yes	Drained Artificial	Absent	No	N/A	None	None	Hard	Dry	High Evidence	High Evidence	Vegetated Gulleys, Hagged Gulleys	Occasional	Abundant	Dominant	Yes	Nearby	None	Rough Grazing
Tower 11	Organic Rich Soil (<0.5m)	Yes	Drained Artificial	Rare	No	Thin	None	None	Hard	Dry	High Evidence	High Evidence	None	Occasional	Abundant	Abundant	Yes	None	None	Rough Grazing
Tower 12	Peat >0.5m	Yes	Drained Artificial	Rare	No	Thin	None	None	Hard	Dry	High Evidence	High Evidence	None	Occasional	Abundant	Dominant	Yes	Yes	None	Rough Grazing
Tower 13	Organic Rich Soil (<0.5m)	Yes	Drained Artificial	Rare	No	Thin	None	None	Hard	Dry	High Evidence	High Evidence	Microerosion vegetrated gulleys	Occasional	Abundant	Abundant	Yes	Yes	None	Rough Grazing
Tower 14	Peat >0.5m	Yes	Drained Artificial	Rare	No	Thin	None	None	Hard	Dry	High Evidence	High Evidence	None	Occasional	Abundant	Abundant	Yes	None	None	Rough Grazing
Tower 15	Organic Rich Soil (<0.5m)	Yes	Drained Artificial	Rare	No	Thin	None	None	Hard	Dry	High Evidence	High Evidence	None	Occasional	Abundant	Abundant	Yes	None	None	Rough Grazing
Tower 16	Organic Rich Soil (<0.5m)	Yes	Drained Artificial	Rare	No	Thin	None	None	Hard	Dry	High Evidence	High Evidence	None	Occasional	Abundant	Abundant	Yes	None	None	Rough Grazing
Tower 17	Peat >0.5m	Yes	Drained Artificial	Occassional	No	Thin	None	None	Hard	Dry	High Evidence	High Evidence	None	Occasional	Locally abundant	Abundant	Yes	None	None	Rough Grazing
Tower 18	Organic Rich Soil (<0.5m)	Yes	Drained Artificial	Occassional	No	Thin	None	None	Hard	Dry	Low Evidence	High Evidence	None	Occasional	Locally abundant	Abundant	Yes	Yes	Conifer Colonisation	Rough Grazing
Tower 19	Peat >0.5m	Yes	Drained Artificial	Occassional	Yes	Both	None	None	Hard	Dry	Low Evidence	High Evidence	None	Occasional	Occassional	Abundant	Yes	Yes	None	Rough Grazing

Key

Strongly Neg Indicator	Negative Indicator	Neutral	Positive Indicator	Strongly Pos Indicator

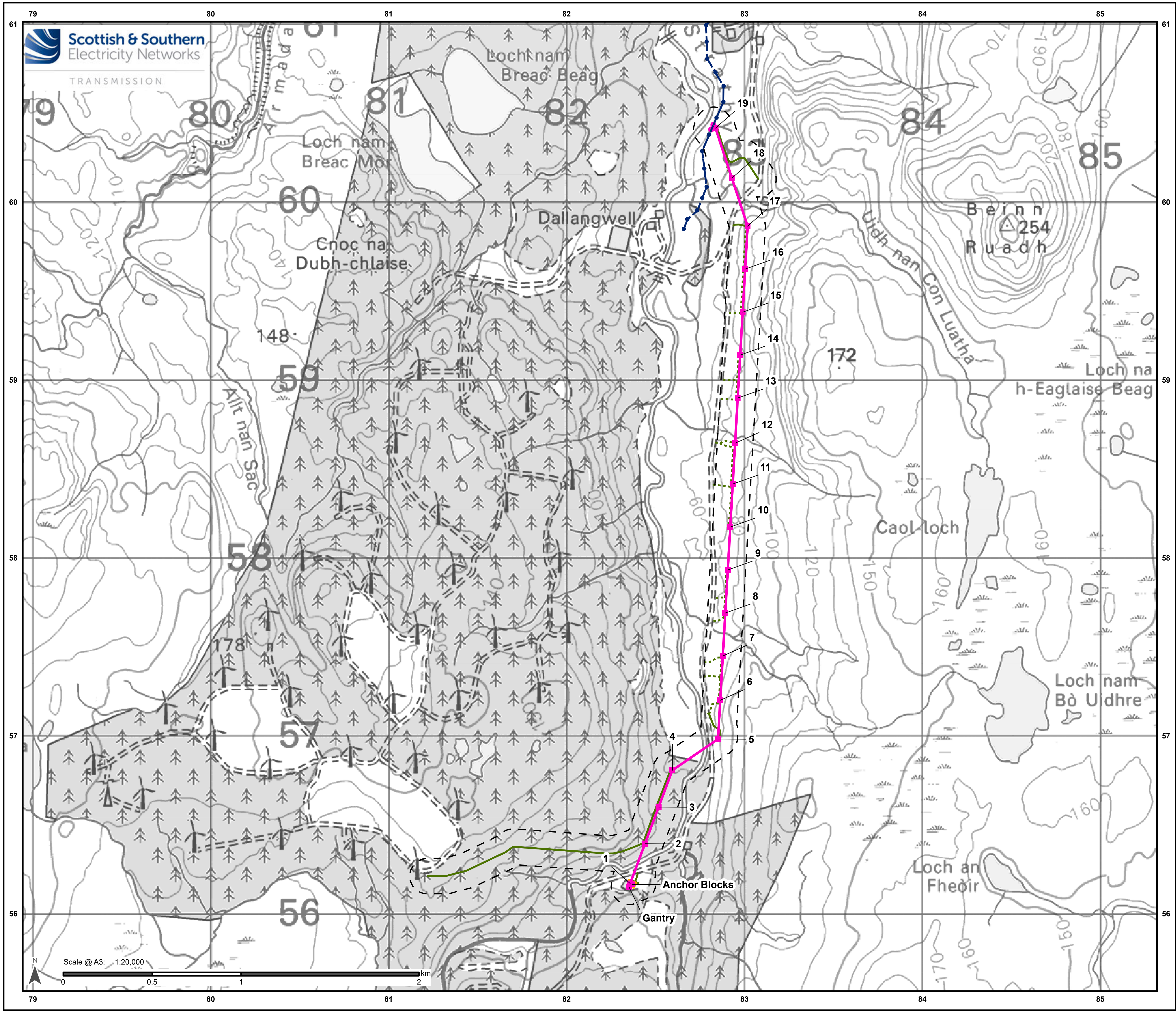
Annex B - Figures

Peatland Condition Assessment

Strathy Wood Wind Farm Grid Connection: Additional Information

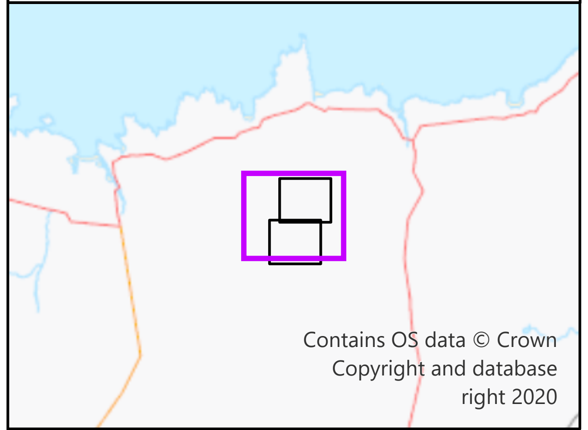
SSEN Transmission

SLR Project No.: 428.013137.00001



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)



Project No: LT559

Project: Strathy Wood Wind Farm Grid Connection EIA Report

Title: Peatland Condition Assessment Figure 9.4.1 - Site Layout

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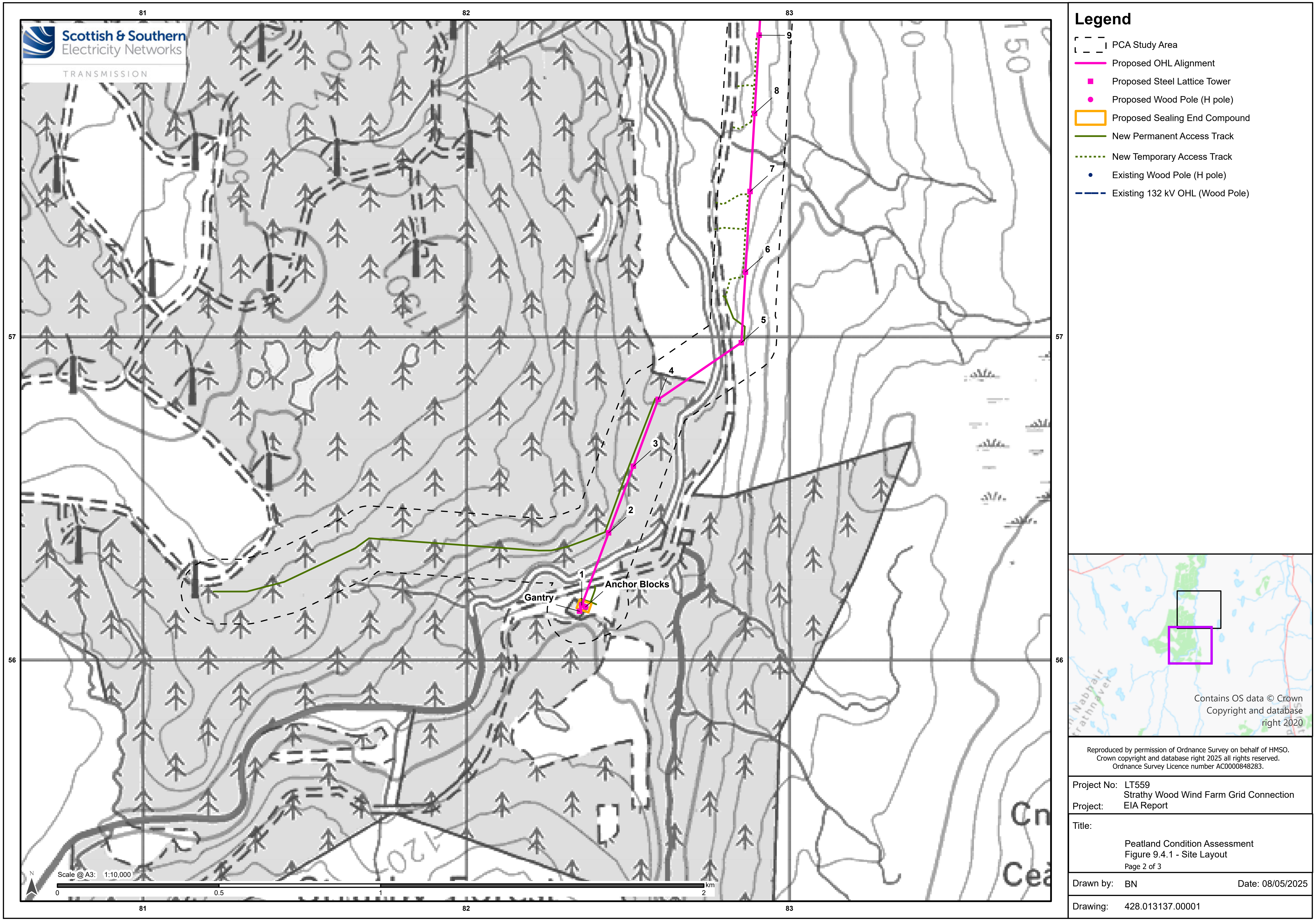

Scottish & Southern Electricity Networks TRANSMISSION

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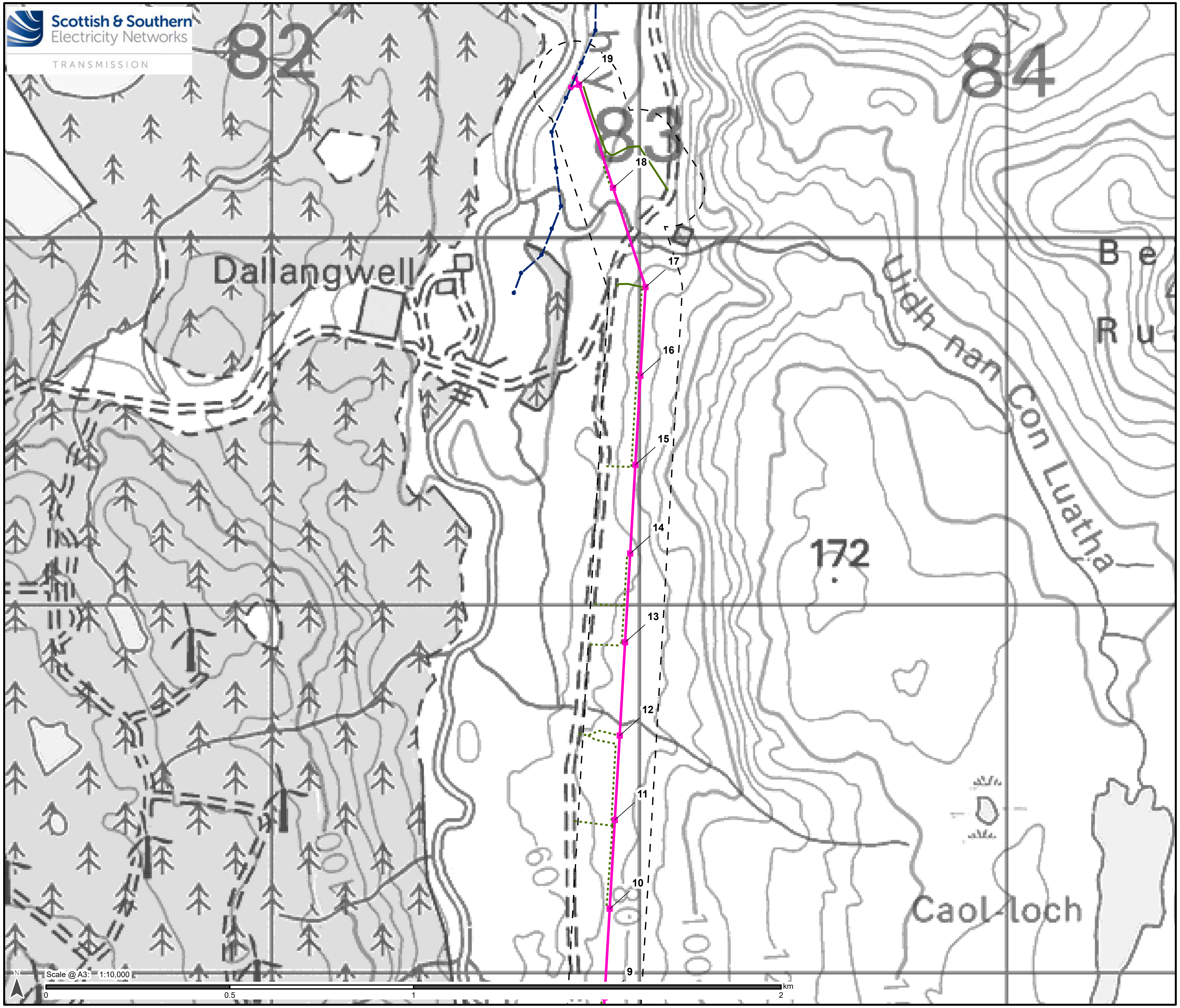

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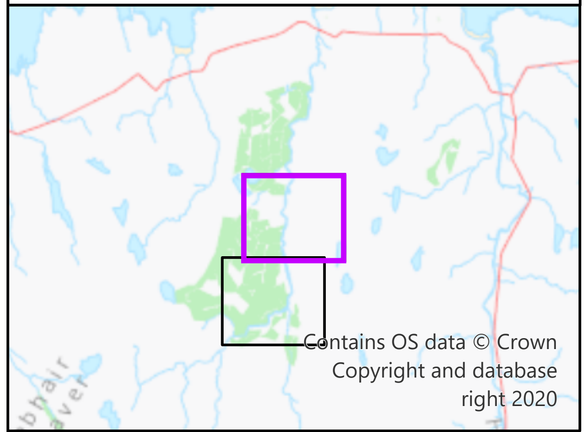

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Peatland Condition Assessment
Figure 9.4.1 - Site Layout
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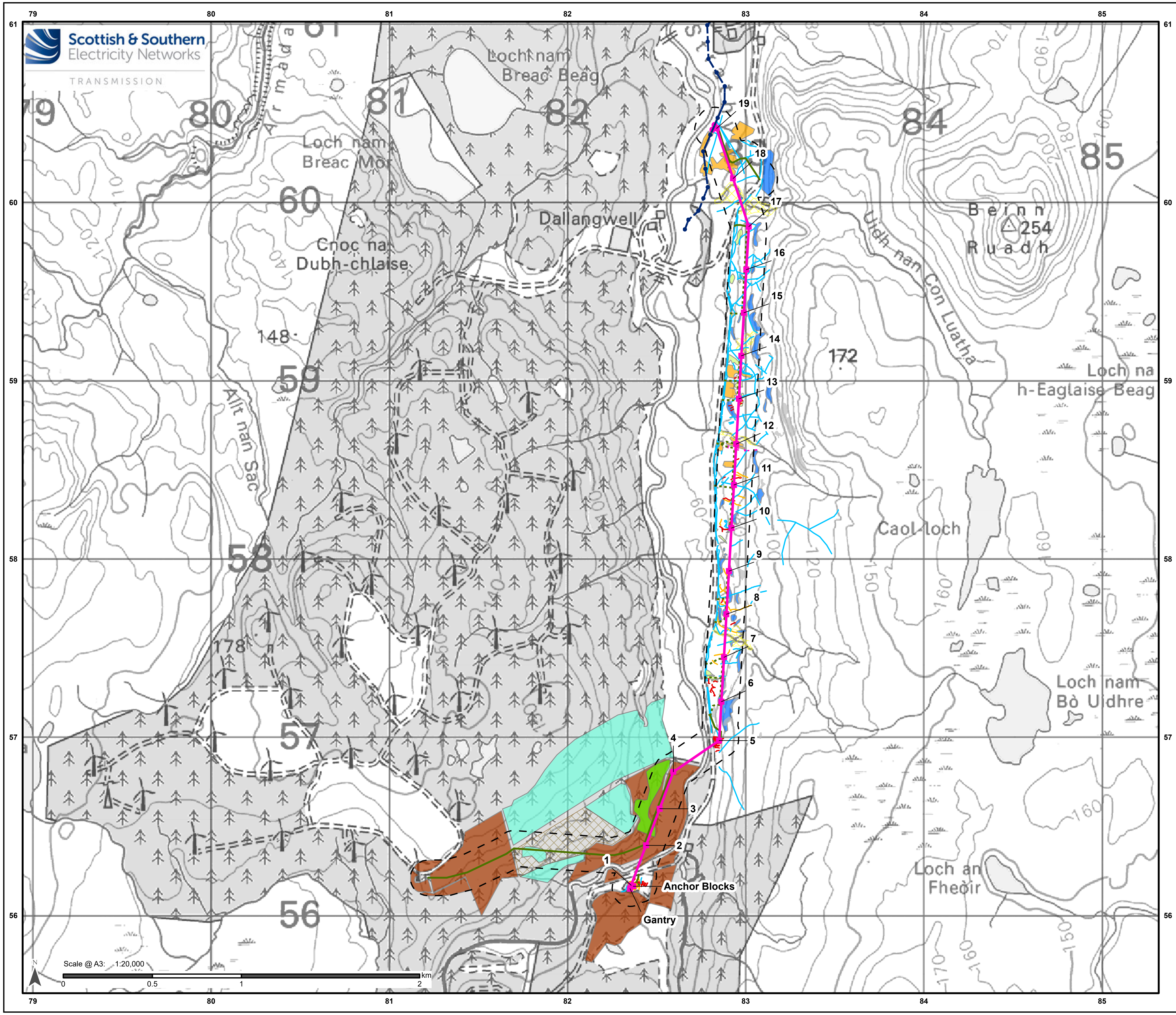

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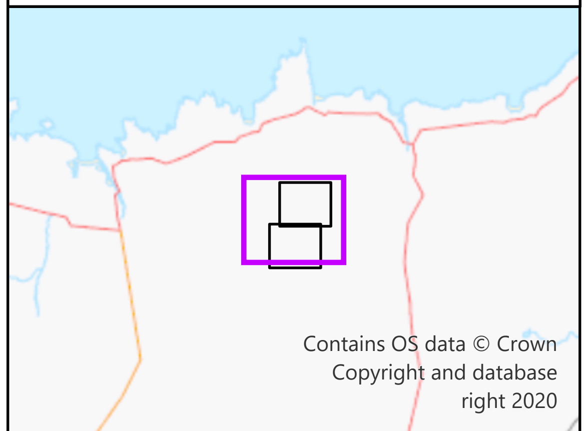
- Hagged Gulley
- ATV tracks
- Regen
- Rock Outcrop
- Forestry
- Felled Forestry
- Windthrow
- Bracken
- Herbivore Terracing
- Microerosion
- Peat Cutting



Project No: LT559

Project: Strathy Wood Wind Farm Grid Connection EIA Report

Title: Peatland Condition Assessment
Figure 9.4.2 - Erosion Features and Landuse
Page 1 of 3

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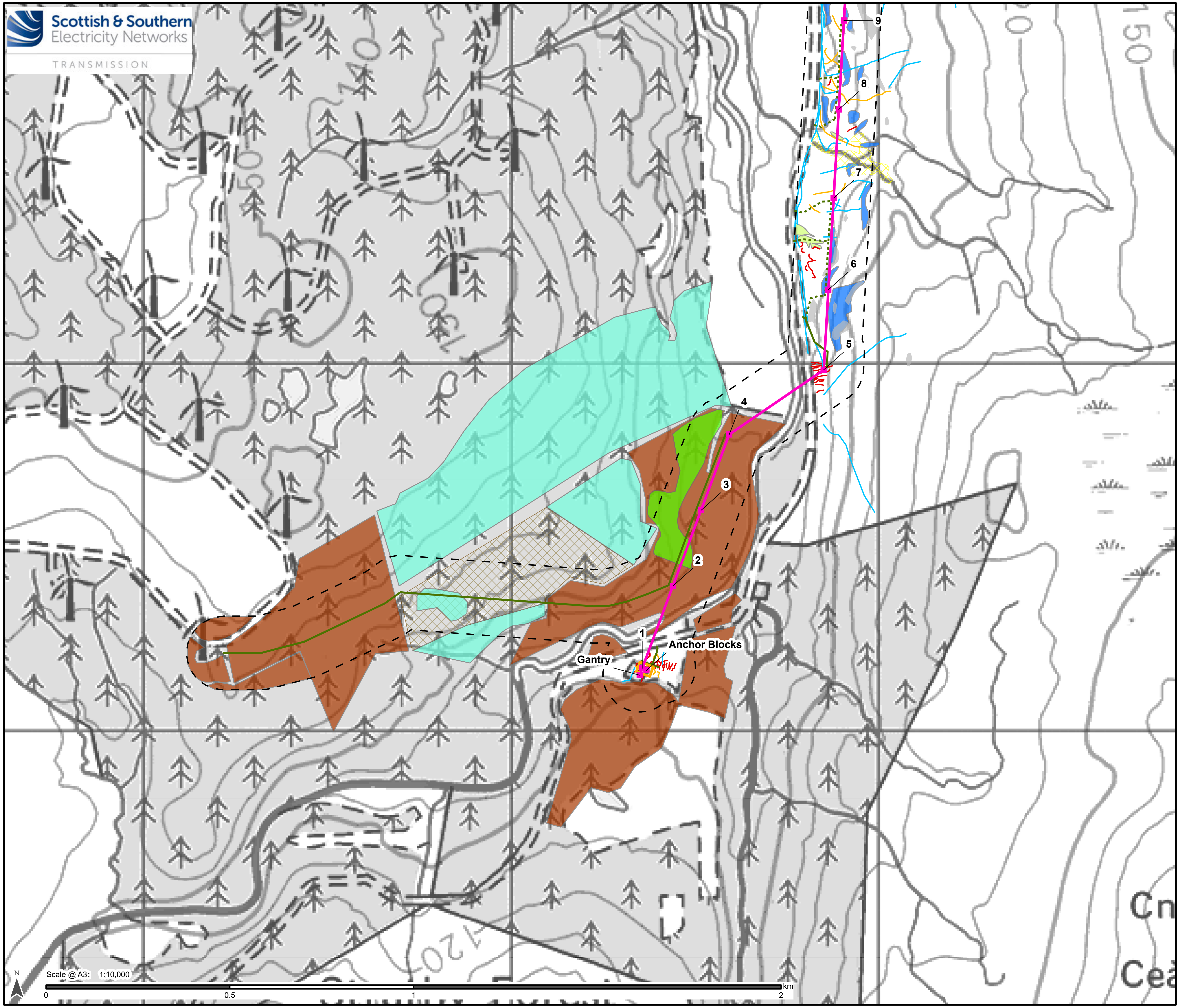

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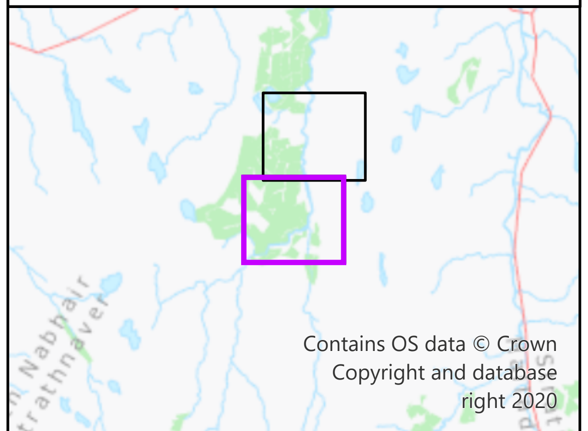

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Peatland Condition Assessment
Figure 9.4.2 - Erosion Features and Landuse

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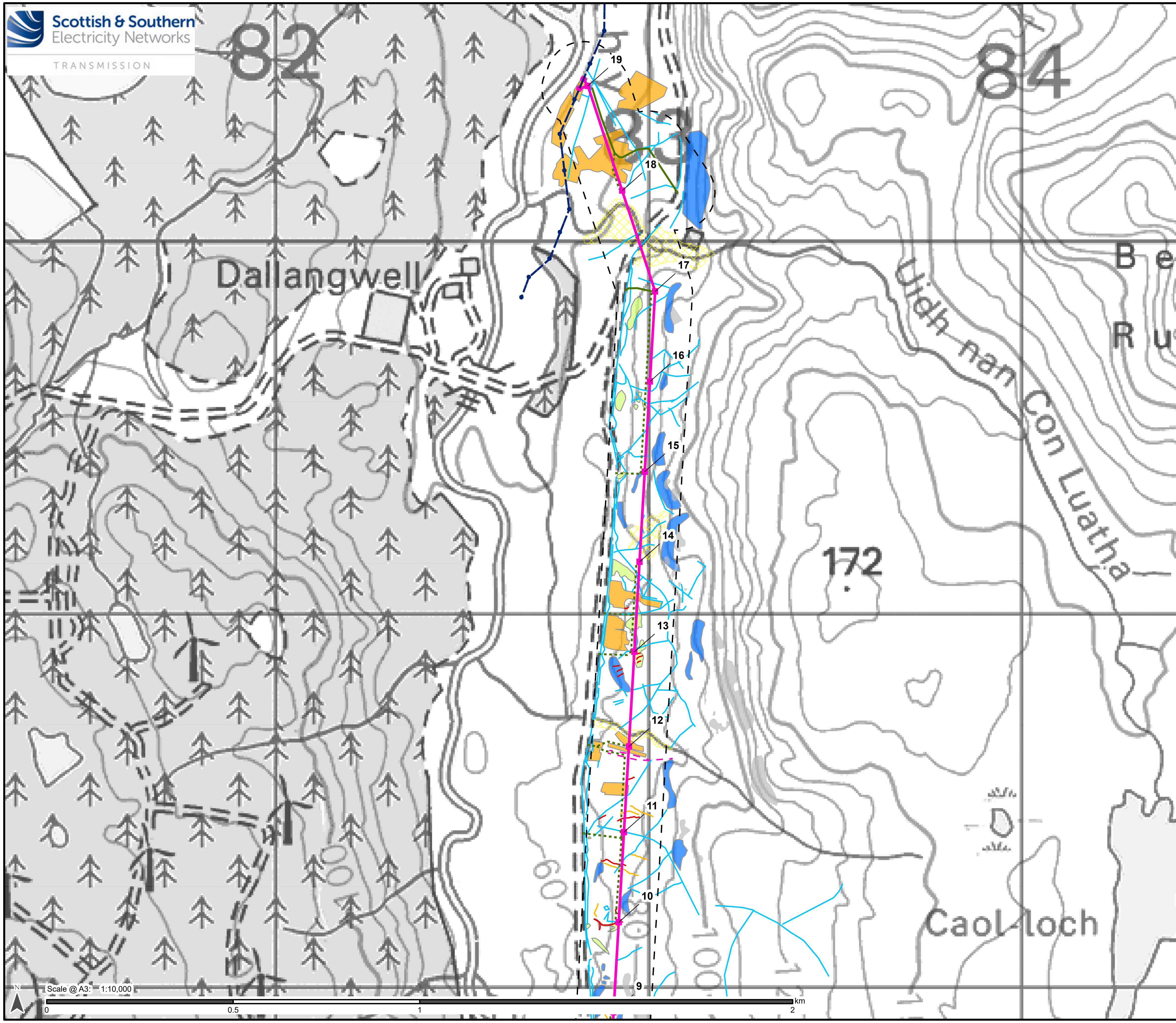

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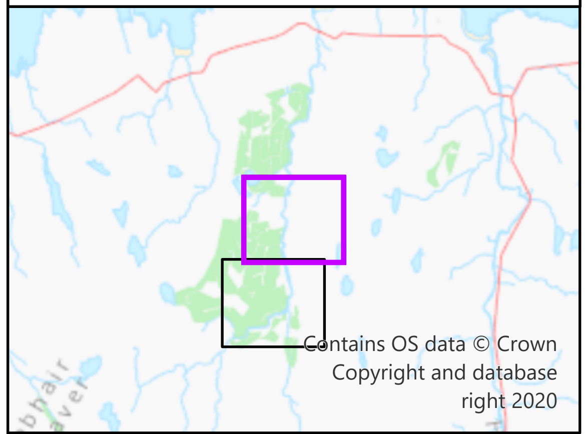
- Microerosion
- Peat Cutting



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Project: Strathy Wood Wind Farm Grid Connection EIA Report

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Figure 9.4.2 - Erosion Features and Landuse

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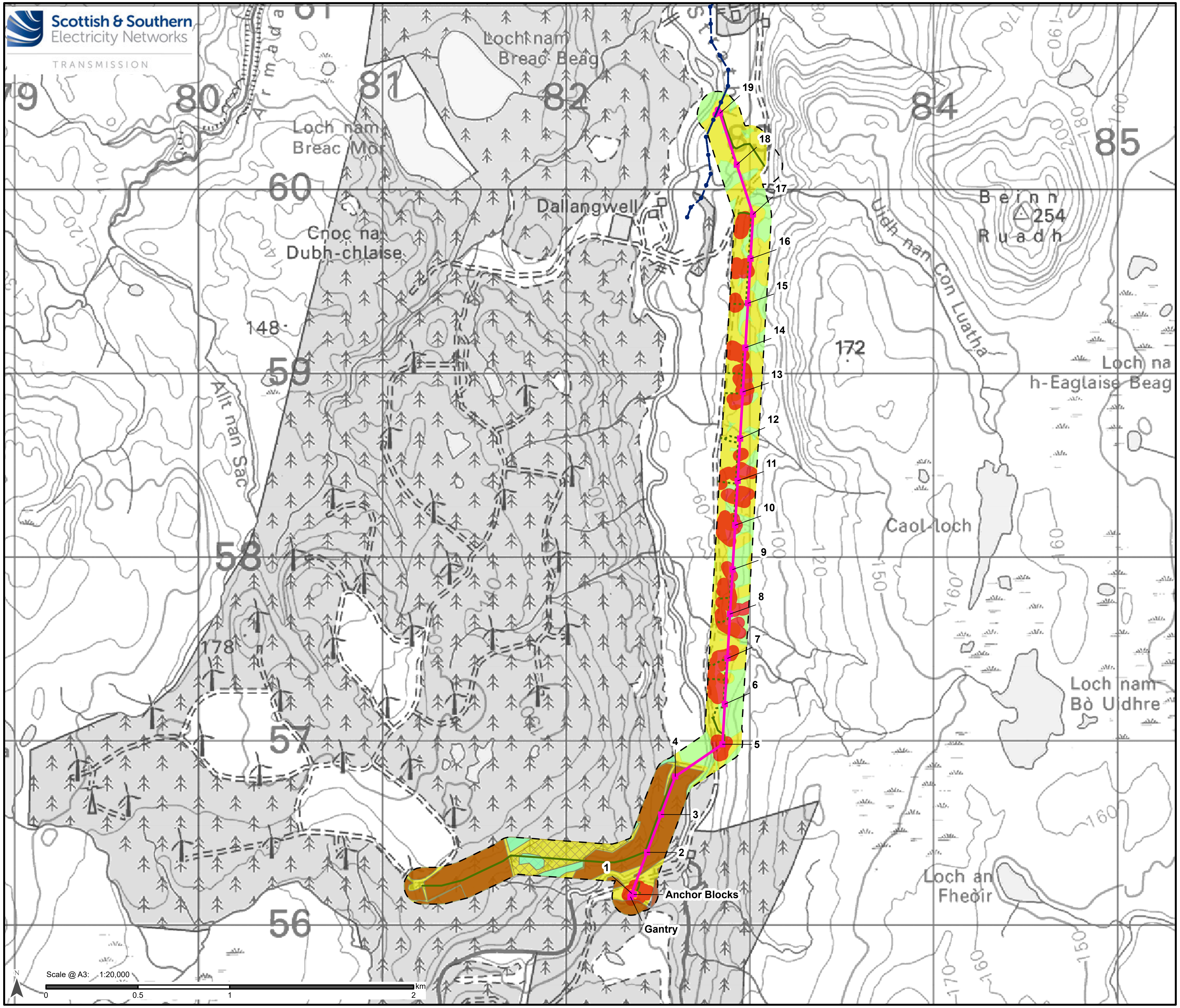
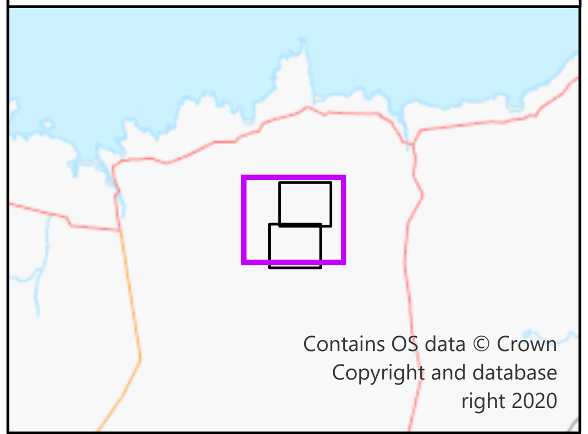


Legend

- 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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Peatland Condition Assessment
Figure 9.4.3 - Peat Condition
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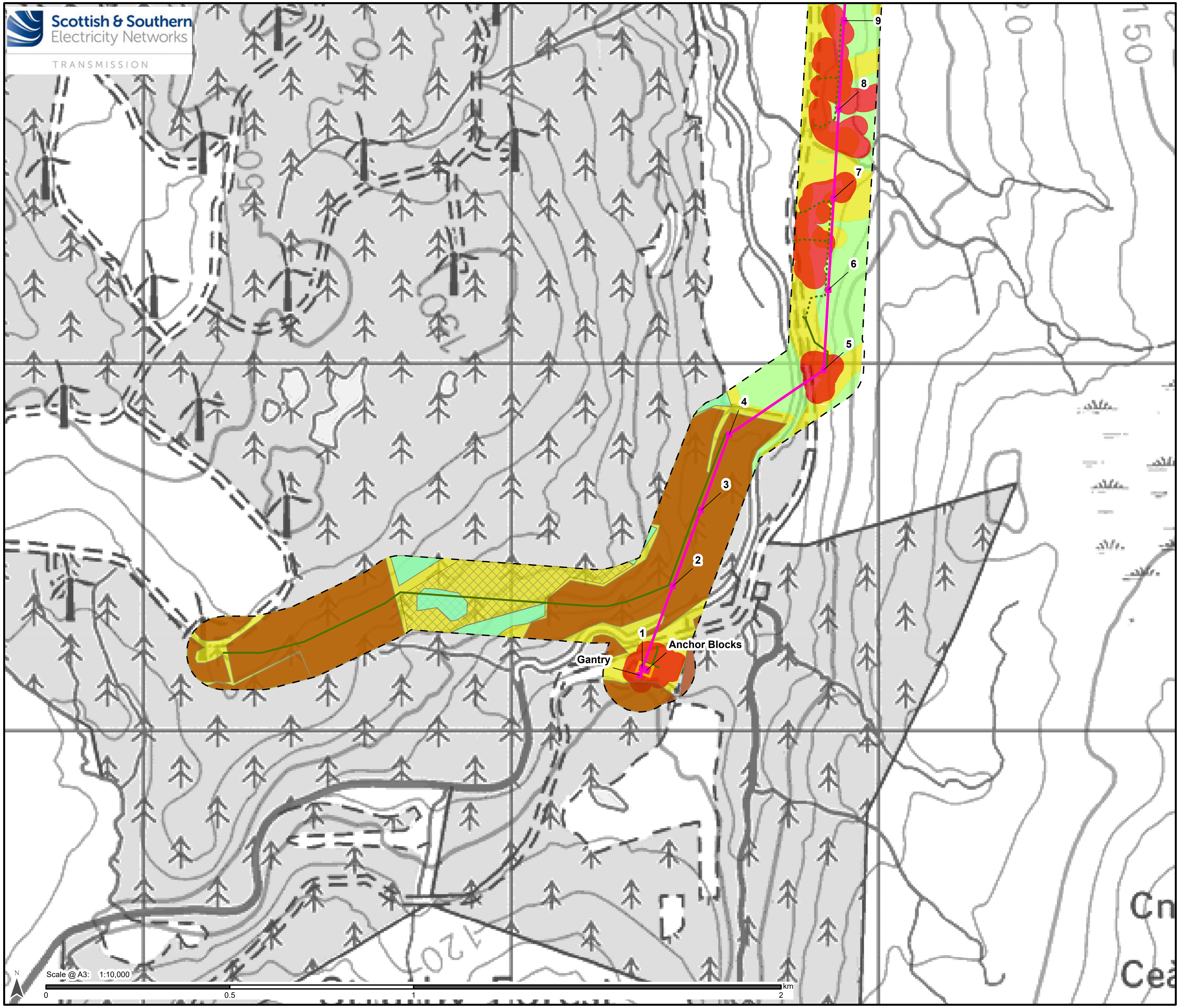

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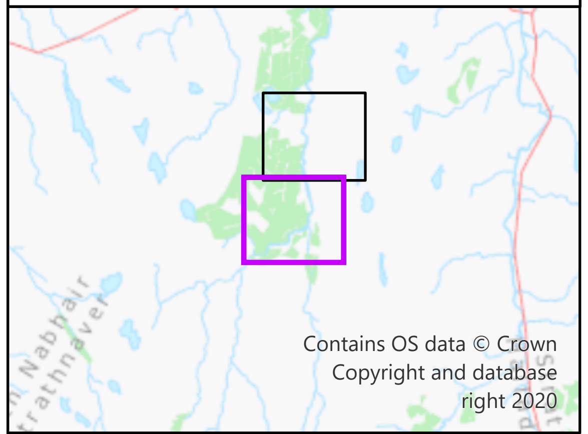

Project No: LT559

Project: Strathy Wood Wind Farm Grid Connection EIA Report

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

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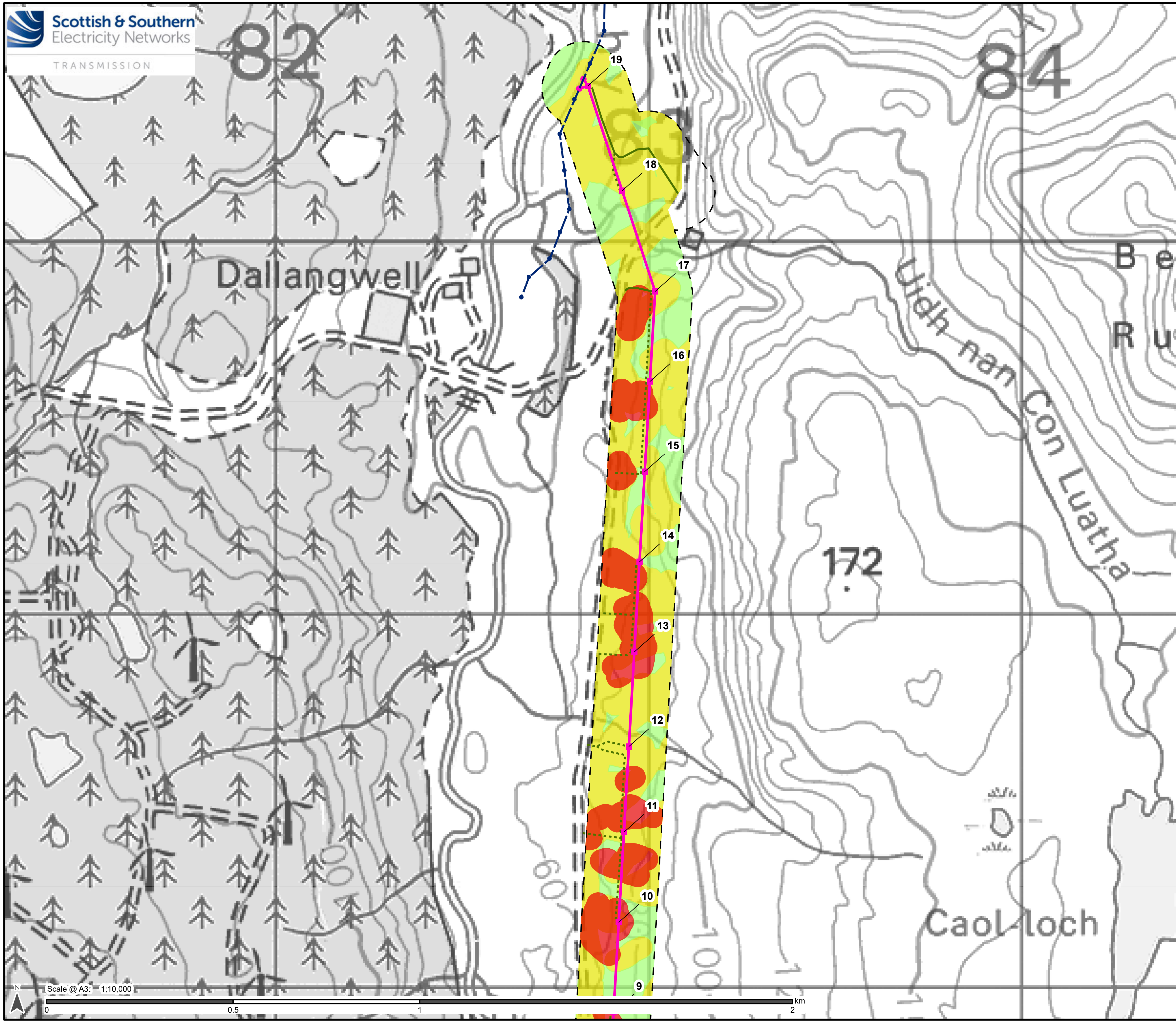

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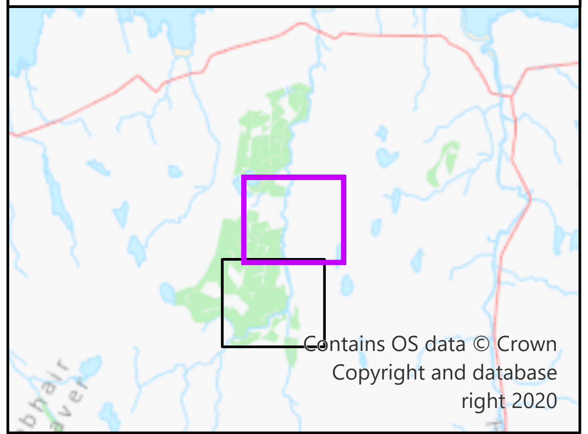

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Peatland Condition Assessment
Figure 9.4.3 - Peat Condition
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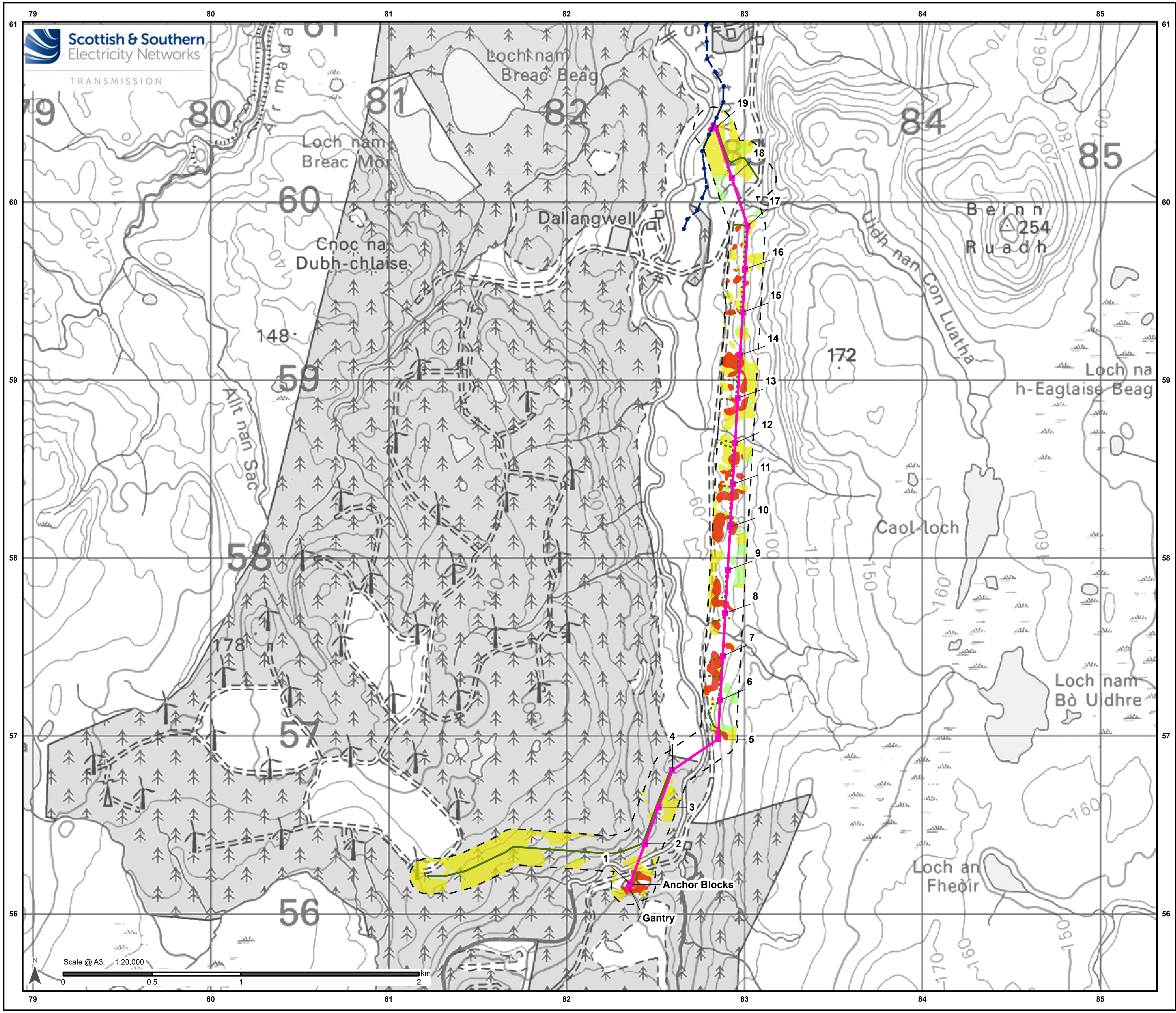

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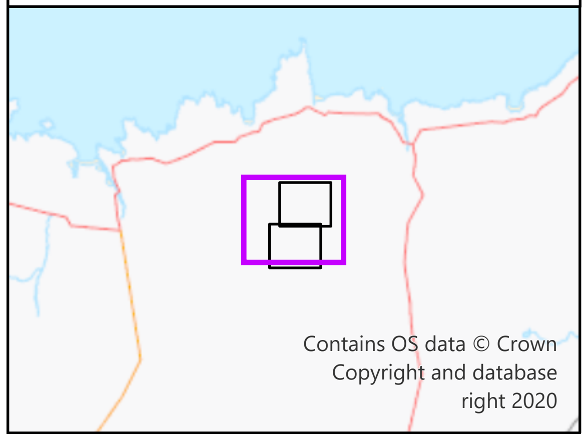

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Peatland Condition Assessment
Figure 9.4.4 - Peat Condition, Peat Depth > 0.5 m
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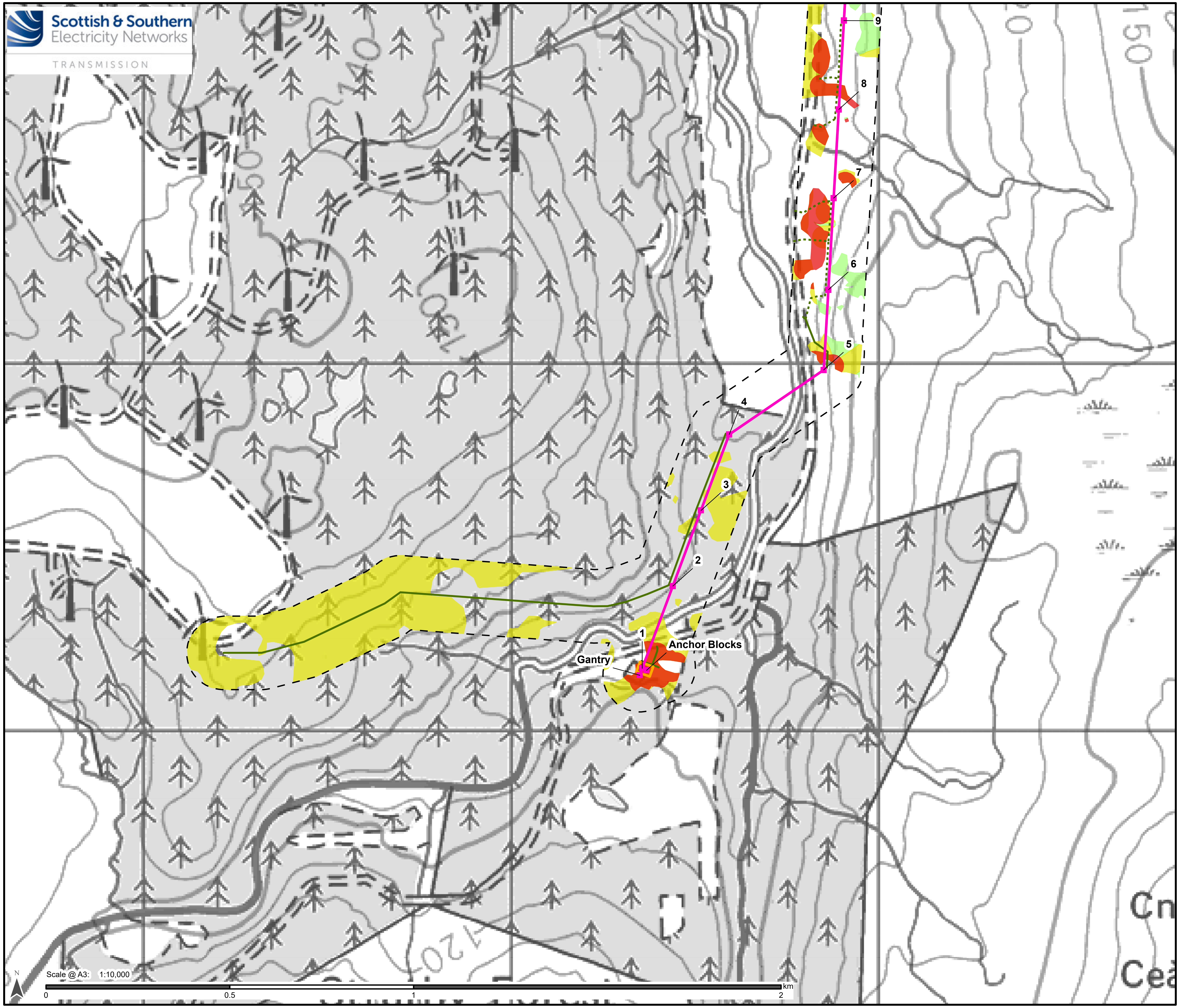

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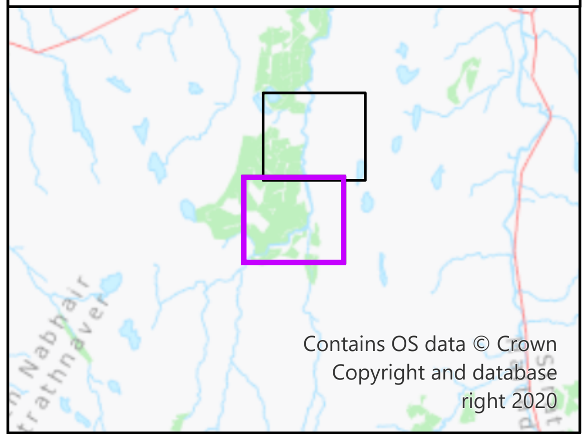

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Peatland Condition Assessment
Figure 9.4.4 - Peat Condition, Peat Depth > 0.5 m
Page 2 of 3

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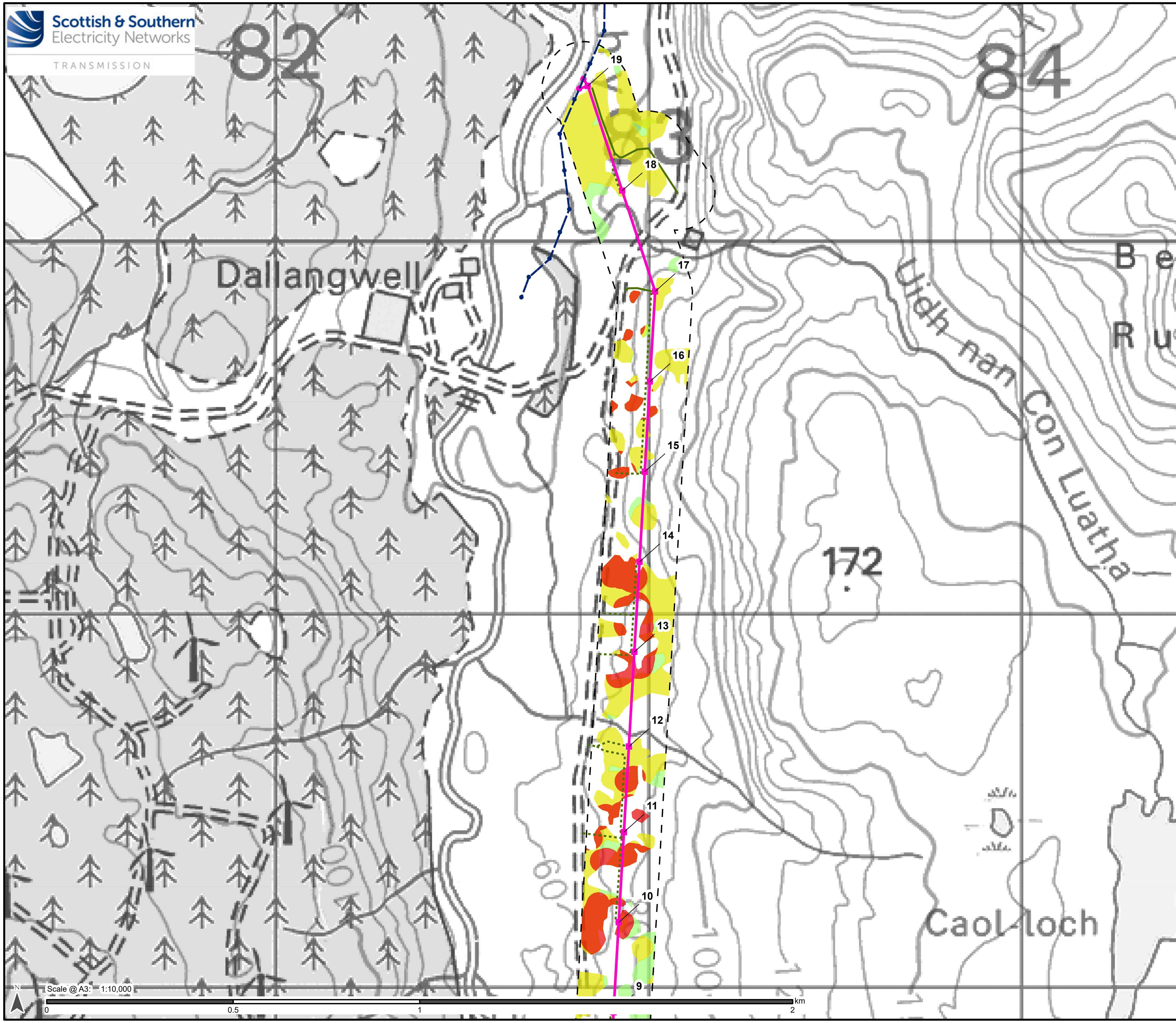

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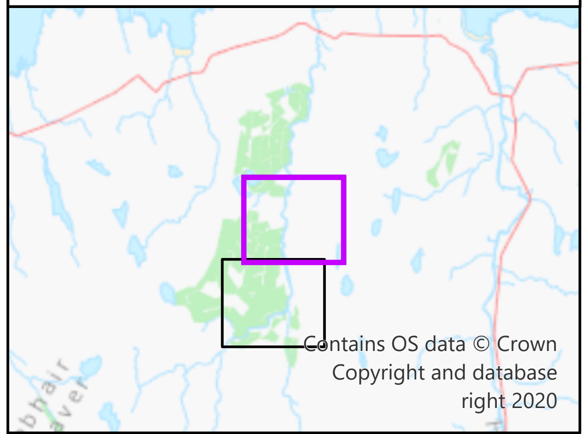

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Figure 9.4.4 - Peat Condition, Peat Depth > 0.5 m
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