

**Spittal to Loch Buidhe to Beauly 400
kV OHL Connection
Environmental Impact Assessment
Volume 5, Appendix 13.1 – AL:
Woodland Reports
Small Areas Northern Line**

July 2025



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1. Introduction

- 1.1 Scottish and Southern Electricity Networks (SSEN) Transmission, hereafter referred to as ‘the Applicant’, owns, operates, develops and maintains the high voltage electricity transmission system in the north of Scotland and the Scottish islands. Due to the growth in renewable electricity generation in the north and north-east of Scotland, upgrade of the transmission network is required to provide the necessary increase in transmission capacity. The Applicant is applying for consent under Section 37 of the Electricity Act 1989 to construct and operate a new double circuit 400 (kilovolt) kV overhead line (OHL).
- 1.2 This report provides an assessment of woodland impact related to the Spittal to Loch Buidhe to Beaully 400 kV OHL Connection project (the ‘Proposed Development’). The report details the woodland area affected by the Operational Corridor (OC), new access tracks (permanent), and additional felling required due to windblow risk within individual ownerships. It also includes mitigation considerations and compensatory planting recommendations.

2. Purpose of this Woodland Report

- 2.1 As part of the Environmental Impact Assessment (EIA) process, it was identified that construction of the OHL and associated access tracks would cross a number of woodland areas within both public and private landholdings. The landholding property boundaries are identified in **Figure 1: Woodland Impacted by the Proposed Development**.
- 2.2 This document provides an assessment of the woodland areas that are affected by the Proposed Development, including the requirement for woodland removal and management recommendations to mitigate the impact of the woodland removal.
- 2.3 Field surveys of the woodland areas have been undertaken and have been used to determine the various woodland characteristics to identify the woodland removal required and recommended. This document also sets out the area, in hectares (ha), of compensatory planting required to ensure no net loss of woodland is achieved.

3. Woodland Property

- 3.1 The properties impacted by the Proposed Development are:
- Torrish Estate;
 - West Hemsdale Estate;
 - Dunbeath Parcel 176; and
 - Caen Hill.
- 3.2 These properties involved in the Proposed Development have differing levels of access to the affected areas. Torrish Estate through the A897 road, the rest of the properties do not have any existing access to the woodlands affected by the Proposed

Development. None of them will undergo new access tracks directly to the woodlands. Refer to **Figure 1: Woodland Impacted by the Proposed Development**.

4. Development Requirements

4.1 400 kV Operational Corridor

4.1.1 With reference to **Figure 1: Woodland Impacted by the Proposed Development**, the OHL sections relevant to the different properties and the associated potential tower locations are outlined below-

- Torrish Estate – The Proposed Development crosses this property from approximately 60 m north of Tower N147 to around 150 m south of Tower N148. Only Towers N147 and N148 fall within this ownership.
- West Hemsdale Estate – The route extends from approximately 150 m north of Tower N149 to about 40 m west of Tower N161. This includes Towers N149 through N161 within the estate boundary.
- Caen Hill- The Proposed Development presents Towers N136 to N146 within this ownership.
- Dunbeath Estate – The alignment runs from 190 m north of Tower N84 to 130 m north of Tower N102. Towers N84 to N102 are located within this ownership.

4.1.2 The Study Area for this assessment is based around an operational corridor of 90 m. The Applicant defines the OC as the area in which it has rights to remove woodland for the purposes of creation of new OHL, resilience and maintenance of OHLs, or protection of electrical plant as required by the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002 regulations and The Electricity Act 1989. The OC is defined as to the distance at which a tree could fall and cause damage to the OHL, resulting in a supply outage. As a result, the final OC width would be based on the safety distance required from the OHL centreline to allow for a mature tree falling towards the OHL, taking account of topography and tree height at maturity.

4.1.3 The OC width that has been assessed and identified for the safe build and energisation of the new OHL through areas of conifer woodland is 90 m (45 m either side of the OHL centreline). Further details can be found in **Section 13.3 of Volume 2, Chapter 13: Forestry** which outlines the extent of the study area.

4.1.4 The OC width that has been assessed and identified for the safe build and energisation of the OHL through the areas of broadleaves is also 90 m (45 m either side of the OHL centreline). This has been assessed as a maximum OC width required at these woodland locations, with the potential of further narrowing of the OC prior to construction to allow greater tree retention, depending on factors such as tree height, topography, crown reduction or other mitigation strategies¹.

¹As specified by the 'Red Zone' set out in paragraph 41 of the Forest Industry Safety Accord. (2020) Safety Guide 804 Electricity at Work: Forestry. [pdf] Available at: FISA 804 (ukfisa.com).

4.2 Access Track Route Design

- 4.2.1 There is no existing direct access to the woodlands within these properties, with the exception of Torrish Estate, where the woodland boundary lies adjacent to the public road A897. In several instances, new sections of both temporary and permanent access tracks will be required either within or outside the OC to facilitate access to the towers that are planned for construction within these properties. None of these new access tracks are proposed within woodland.
- 4.2.2 New access tracks, also detailed in **Figure 1: Woodland Impacted by the Proposed Development** will be built to service the Towers within the different ownerships.
- 4.2.3 These access tracks can serve as the main arterial construction route. Tree felling and timber extraction would be able to utilise existing tracks, prior to any construction activity.
- 4.2.4 Where existing tracks require maintenance or upgrading, this may involve the removal of trees and scrub to facilitate the works, particularly to accommodate the creation of additional passing places. While much of the upgrade activity would fall within standard forest access maintenance, which typically involves the removal of scrub, regeneration, and crown management, some sections may require additional tree clearance within a corridor of up to 12 m in width.

5. Woodland Characteristics

5.1 A desk-based study of the woodland areas was conducted, to identify current woodland environmental designations and classifications.

5.2 The web-based data provided by Scottish Forestry and referencing the Scottish Government's Ancient Woodland Inventory (AWI), and

- The Scottish Forestry Map Viewer provides spatial data on the Native Woodland Survey of Scotland (NWSS) and classifies the woodland types into four categories^{2 3}:

² Scottish Forestry Map Viewer URL

<https://scottishforestry.maps.arcgis.com/apps/webappviewer/index.html?id=0d6125cfe892439ab0e5d0b74d9acc18>

³ Scottish Forestry Native Woodland Survey of Scotland: Glossary of Terms; URL: Main Title (forestry.gov.scot)

Native Woodland – woods where the canopy cover is composed mainly of native species (i.e., over 50%).

Nearly Native Woodland - where native species make up between 40% and 50% of the canopy. These are woods that could have potential to be converted into native woodlands by altering their species mix.

Open Land Habitat – areas with <20% canopy cover of trees and shrubs adjoining a native woodland.

PAWS - Plantation on Ancient Woodland Sites. These are surveyed in the NWSS where they are recorded in the Scottish ancient woodland inventory (SAWI). These woodlands appear to have originated through natural regeneration sometime before the mid-19th century, but were later converted to planted wood.

1. Native woodland
2. Nearly-native woodland
3. Open land habitat
4. Plantations on Ancient Woodland Sites (PAWS)

5.3 There is one property, Dunbeath, which presents woodland that is classified within the AWI as Ancient Woodland Site of Natural Origin (AWSNO) category 2a 1860. This woodland is composed of mainly birch trees of semi-mature stage. Refer to **Table 5.1**.

Table 5.1: Woodland Designations			
Item	Type of Infrastructure	Woodland Designations	Area (ha)
Operational corridor	Permanent	AWI- AWSNO (2a)	0.42
		NWSS- Native woodland	0.42

5.4 As shown in **Table 5.1**, this 0.42 ha woodland, classified as Ancient Woodland of Semi-Natural Origin (AWSNO 2a), is located within Dunbeath Parcel 176. It forms part of the ancient woodlands along the Dunbeath Water, which is also designated as a Site of Special Scientific Interest (SSSI) for geological features and biological interest for the upland birch woodland. The woodland is predominantly composed of pole-stage immature birch.

5.5 Additionally, it is classified as Native Woodland – Upland Birchwood under the NWSS.

5.6 The remaining woodlands across the other properties do not hold any formal designation or classification.

5.7 Torrish Estate, located along the northern edge of the River Hemsdale, contains woodland comprised of pole-stage immature to semi-mature broadleaved trees, primarily birch, with occasional willow. The trees average approximately 5 m in height. Refer to **Plate 1**.



Plate 1- Photograph showing the northern side native broadleaved woodland on the edge of Hemsdale River where the OC intersects Torrish Estate ownership. Grid reference ND 01183 17550. Photograph from Google maps 2025.

5.8 The southern bank of the River Hemsdale, within the West Hemsdale Estate, features woodlands of similar character as Torrish Estate. These consist predominantly of pole-stage immature to semi-mature birch, interspersed with scattered rowan and willow. The understorey includes areas of gorse. The woodland occupies a gentle slope, with trees also averaging around 5 m in height. Refer to **Plate 2**.



Plate 2- Photograph looking at the southern side of the OC within West Hemsdale estate ownership. Woodland composed of native broadleaved at grid reference ND 01196 17430. Photograph from Google maps 2025.

5.9 Caen Hill consists of a small patch of semi-mature broadleaved woodland, primarily composed of birch species, situated along the edge of the Caen Burn. It shares similar characteristics with the adjacent woodlands at West Hemsdale.

5.10 Individual areas affected by the Proposed Development can be seen in **Table 9.4**.

5.11 The site soils are predominantly brown earths with humus-iron podzols.⁴

6. Windblow Risk Impact

6.1 An assessment was undertaken of the risk of windblow to areas of woodland adjacent to the OC which would be exposed due to the tree clearance required for the OC. This assessment was based on the professional judgement of the forestry surveyor with consideration being given to the soil and moisture regime, the topography, tree species, top height, exposure, altitude and aspect in relation to the prevailing wind direction and any previous management regimes. This assessment was also based on site visits and observations, and available data of the site. Reference was also made to Forest GALES 2.5 Forest Research decision support system, where appropriate.

6.2 Given the nature of the rest of the woodlands, their nature, height and structure, and the local characteristics of soils, topography and aspect, it is anticipated that the introduction of the OC will not result in future windblow to the adjoining woods. Refer to **Table 9.1**.

⁴ Scottish Government's Scotland's soils website <https://soils.environment.gov.scot>

- 6.3 The woodland site affected by the Proposed Development has a ‘Detailed Aspect Method of Scoring’ (DAMS)⁵ windblow hazard class score of between 7 and 10, which is classified as sheltered. The sites have mineral soils with shallow rooting which are mostly cool and moist.

7. Woodland Management Impact

- 7.1 The OHL will create additional challenges for the future management of the forest as it dissects existing management coupes and introduces an electrical hazard. The risks associated with the electrical hazard will be reduced by regular maintenance of the OC, so maintaining the compliance of the OC and reducing any need for future tree clearance operations within the “Red Zone”.⁶
- 7.2 While the OC will result in the sterilisation of some woodland areas, this is not expected to impact forest restructuring. This is due to the fact that native woodlands are generally not subject to commercial management. Opportunities for mitigation and woodland enhancement are outlined in **Section 8**.
- 7.3 The OHL will cross the woodland road network at either approximately 45 or 90 degrees and will be built to the regulatory safe height clearances above forest access tracks, which will reduce the hazard in respect of future timber haulage. It may still, however, impact on machine operations within the proximity of the OHL, such as stacking and loading. Mitigation of which could be incorporated into the access design, following discussions with the landowner.
- 7.4 The OHL may be restrictive to future in-forest machinery access. The requirement for dedicated forestry machine OHL crossing points will be discussed with the landowner, and if required, will be identified once the OHL has been constructed, therefore providing a safe OHL crossing point(s) for future working within the woodland.
- 7.5 The impact of the Proposed Development on the overall viability and continuity of woodland management across the affected properties has been carefully assessed. The woodlands within these three properties are primarily composed of native broadleaved species, generally at an early stage of maturity and development, with open canopies and limited structural maturity. Due to their small scale, natural character, and the low-intensity management they require, the Proposed Development is not expected to significantly affect ongoing forest operations or management activities. No notable fragmentation or disruption to woodland continuity is anticipated.

⁵ Detailed Aspect method of Scoring (DAMS) Ref. Forest Research, “Forest Gales software programme” and Forestry Commission Leaflet 85 “Windthrow Hazard Classification”

⁶ As specified by the ‘Red Zone’ set out in paragraph 41 of the Forest Industry Safety Accord (FISA) Safety Guide 804. Electricity at Work: Forestry (2020) FISA 804 (ukfisa.com)

- 7.6 The impacts arising from the Proposed Development are not anticipated to affect the wider woodland management regime, nor are they expected to necessitate any alteration to the current or planned species composition.

8. Mitigation Opportunities

- 8.1 Mitigation to reduce the extent of tree felling within the OC will be considered and incorporated in areas of broadleaved woodlands as part of the Proposed Development. Refer to **Section 13.5.3** Good practice and **Section 13.7.1** Mitigation within **Volume 2, Chapter 13: Forestry**. The Applicant will be using a process of ‘managed resilience’ which will seek to retain naturally regenerated broadleaved trees and shrubs as close as possible to the line to keep as much tree cover as possible. Smaller and lower growing tree species and shrubs can be retained closer to the OHL. OHL vegetation maintenance would take place on a 4-yearly cycle as required.
- 8.2 Impacts on woodland restock opportunities, resulting from the OC sterilisation, could be addressed through the amendment of the Felling Licence Application or the Long-Term Forest Plan (LTFP), adhered to the regulations of the Forestry and Land Management (Scotland) Act 2018, and in line with the UK Forestry Standard guidance to utilise wayleave corridors as designed Open Ground, repurposing currently unplanted areas to maintain the commercial productivity of the woodland.
- 8.3 Before the construction phase, these areas, along with access tracks, will be assessed for selective felling and also crown reduction to determine if greater tree retention is feasible. The final extent of tree retention will depend on the requirements of the Proposed Development, particularly ensuring the safety of OHL wiring operations during construction.
- 8.4 The permanent loss of 0.31 ha of native broadleaved woodland within Dunbeath Parcel 176, although impacted as designated woodland part of the SSSI, is not considered significant in terms of overall habitat availability. This area accounts for less than 0.6% of the total native woodland within the designated site and represents only a small component of the broader upland birchwood associated with the Dunbeath Water SSSI designation.
- 8.5 The OC woodland removal area is required for the construction and operation of the new OHL infrastructure. Opportunities will be assessed for encouraging woodland regeneration within the OC, the identification of suitable areas cannot be guaranteed due to the requirement of maintaining the safe energisation of the OHL. Reference to **Tables 9.2 and 9.3** below, will fully mitigate the loss of forest resource within the OC through compensatory planting of the equivalent area (ha) of woodland removed.

8.6 Impact of stability within the remaining crop has been assessed and reported on above.

9 Woodland Removal Impact

Table 9.1: Woodland Removal for Infrastructure

Item	Type of Infrastructure	Woodland type	Area (ha)
Operational corridor	Permanent	Broadleaved woodland	1.35

Table 9.2: Compensatory planting

Compensatory Planting Area		1.35
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Table 9.3: Woodland Removal Impact of Infrastructure

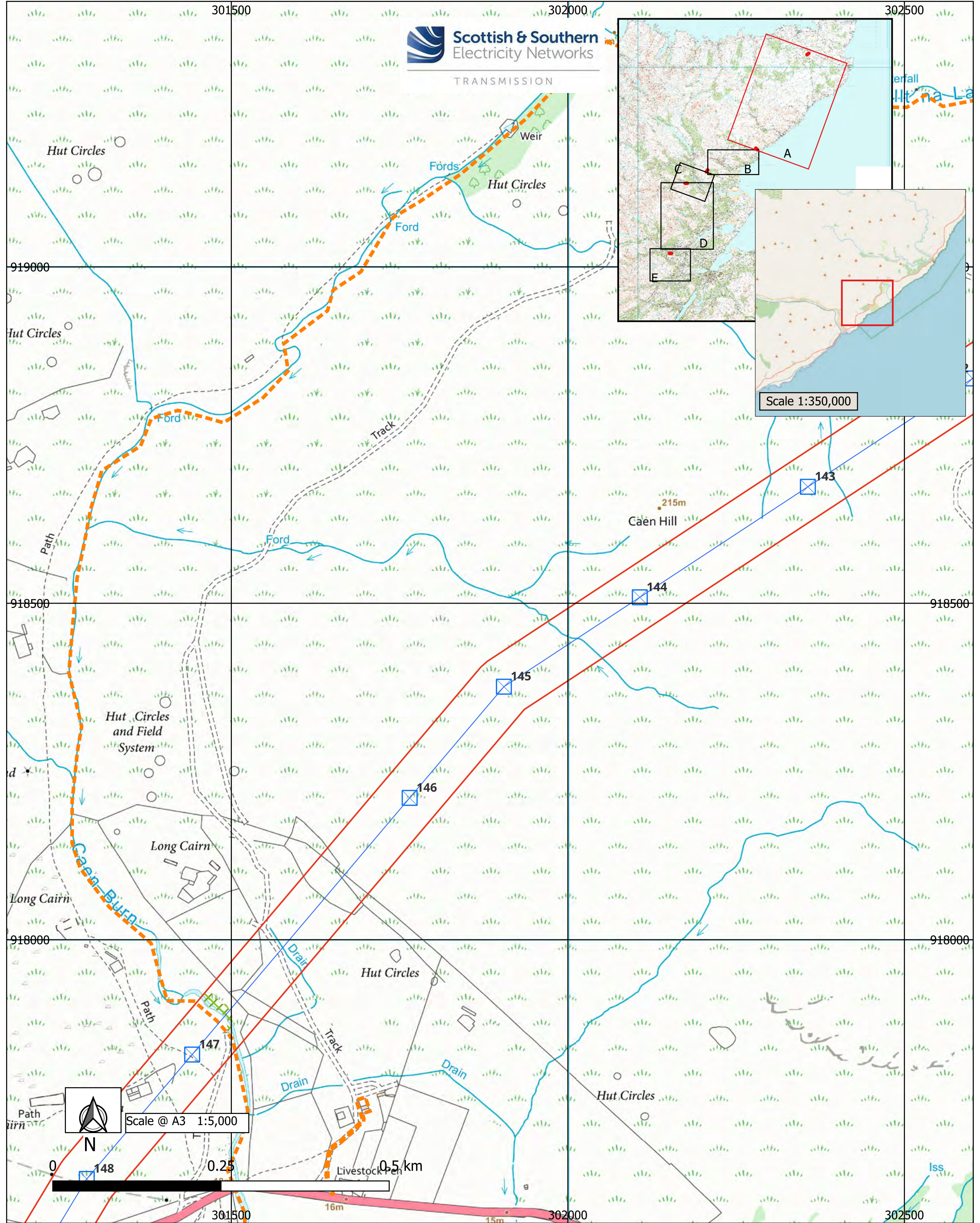
Item	Woodland type	Area (ha)
Total Loss of Woodland Area	Broadleaved woodland	1.35
Total Compensatory Planting Area off-site	Broadleaved woodland	1.35
Total Restocking/ Replanting Area on-site	Broadleaved woodland	0
Total Net Loss of Woodland Area		0

Table 9.4 Woodland breakdown (ha)

Property name	Broadleaved woodland
Torrish Estate	0.35
West Hemsdale Estate	0.49
Caen Hill	0.09
Dunbeath Parcel 176	0.42
Total	1.35

10. Compensatory Planting

- 10.1 Compensatory planting to achieve the area quantity (ha) of woodland removal as a result of the Proposed Development will be in accordance with the Scottish Government's Control of Woodland Removal Policy of no net loss of woodland. A compensatory planting strategy is set out in **Volume 5, Appendix 13.3: Compensatory Planting Strategy**.



Legend

Landownership boundary/parcel

Operational Corridor

Central line Operational Corridor

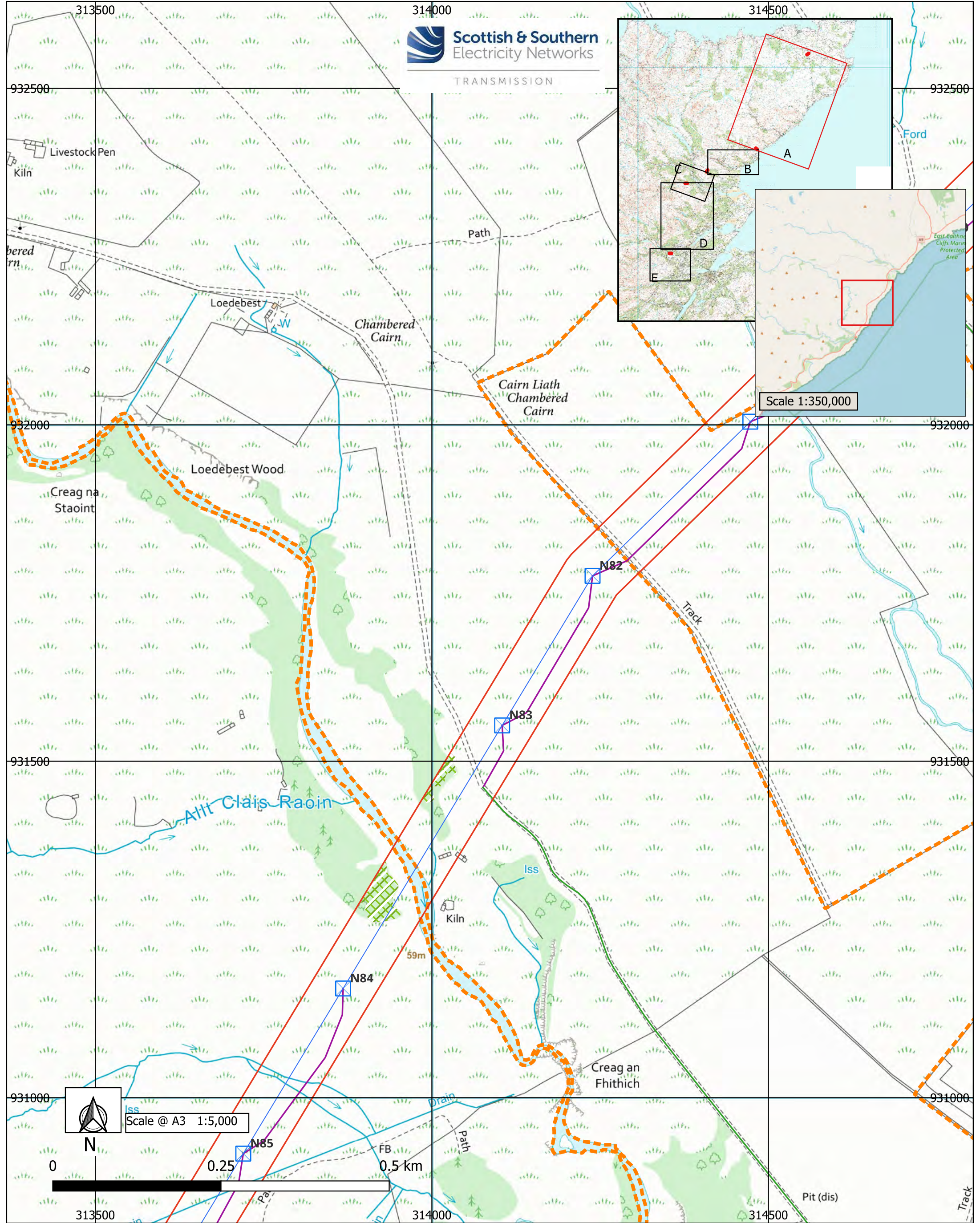
Proposed 400kV OHL Towers

Broadleaved woodland- Operational Corridor 90m

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Woodland report
Project No- LT000132
Spittal- Loch Buidhe - Beaully 400kV Connection
Figure 1. Woodland Impacted by the Proposed Development
Section A- Small areas Northern Line
Caen Hill

Ref No: 23-06-2025



Landownership boundary/parcel

Operational Corridor

Central line Operational Corridor

Proposed 400kV OHL Towers

Access Tracks- Existing Upgrade

Access Tracks- New Stone Temp

Broadleaved woodland- Operational Corridor 90m

NWSS- Native woodland

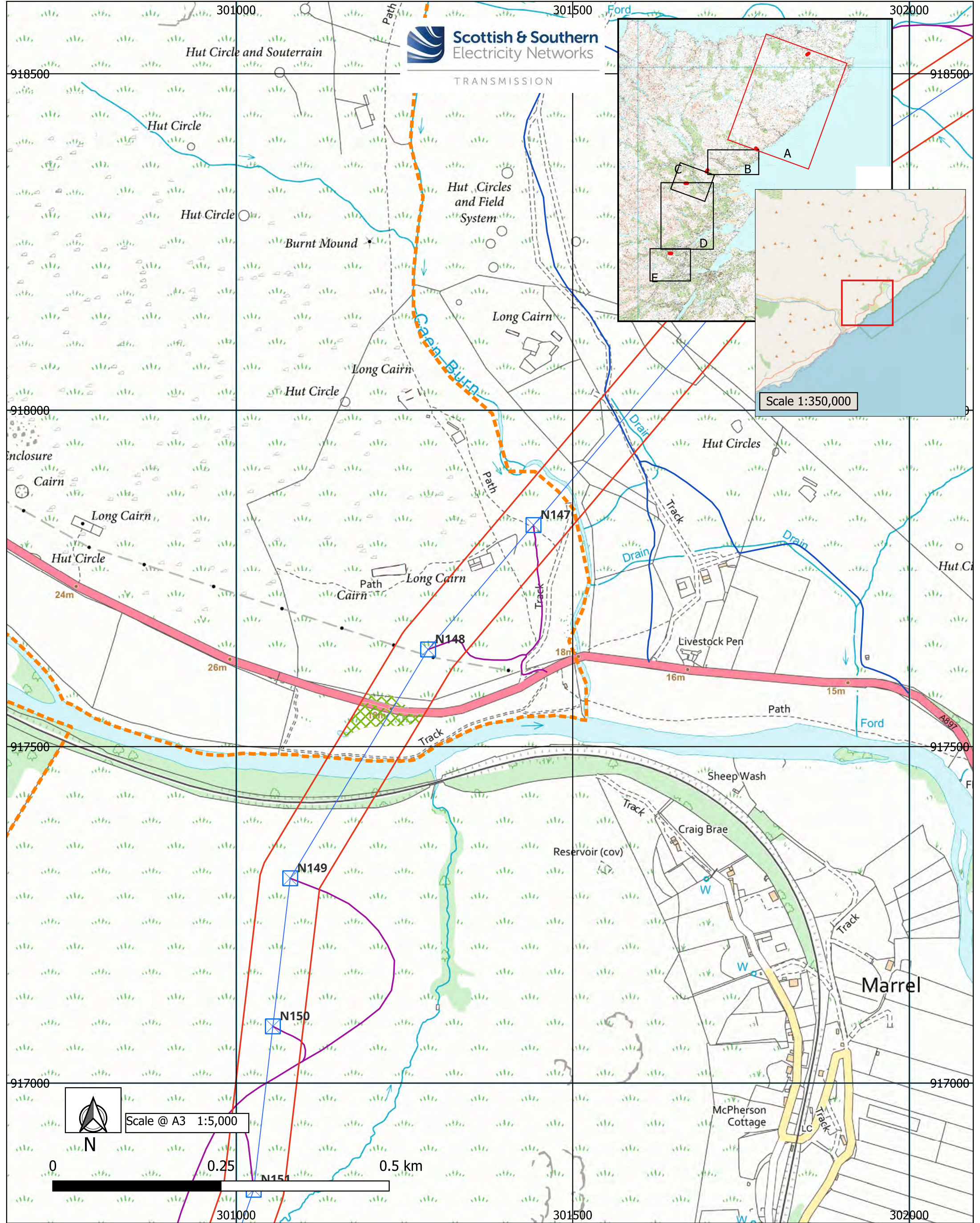
Scale @ A3 1:5,000

0 0.25 0.5 km

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Woodland report
Project No- LT000132
Spittal- Loch Buidhe - Beauly 400kV Connection
Figure 1. Woodland Impacted by the Proposed Development
Section A- Small areas Northern Line
Dunbeath Parcel 176

Ref No: 28-06-2025



Legend

Landownership boundary/parcel	Proposed 400kV OHL Towers	Broadleaved woodland- Operational Corridor 90m
Operational Corridor	Access Tracks- New Stone Perm	
Central line Operational Corridor	Access Tracks- New Stone Temp	

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Spittal- Loch Buidhe - Beaully 400kV Connection
Figure 1. Woodland Impacted by the Proposed Development
Section A- Small areas Northern Line
Torrish Estate

Ref No: 28-06-2025

