Volume 5: Appendix 8.2.32 – Woodland Report: Durris

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1. WOODLAND REPORT: DURRIS

1.1 Introduction

1.1.1 This Woodland Report has been prepared by Scottish Hydro Electric Transmission plc (the Applicant) who, operating and known as Scottish and Southern Electricity Networks Transmission (SSEN Transmission), own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands.

1.1.2 This Woodland Report will accompany an application for Consent under Section 37 of the *Electricity Act 1989*[1] (as amended) and Section 57(2) of the *Town and Country Planning (Scotland) Act 1997* to construct and operate approximately 105.2 kilometres (km) of new double circuit 400 kilovolts (kV) overhead transmission line (OHL) between Kintore and Tealing (hereafter referred to as the 'Proposed Development'). A full description of the Proposed Development and its ancillary works is set out within **Volume 1, Chapter 3: Project Description** of this EIAR.

1.2 Purpose of this Woodland Report

1.2.1 As part of the Environmental Impact Assessment (EIA) process, it was identified that the OHL construction and the access tracks required to construct the Proposed Development would cross a number of woodland areas within private or state-owned landholdings.

1.2.2 This Woodland Report provides a conceptual assessment of the woodland areas that are affected by the Proposed Development, including the requirement of woodland removal and management recommendations to mitigate the impact of the woodland removal.

1.2.3 This Woodland Report relates to land at Durris and the relevant landholding property boundary is presented in **Figure 8.1.32: Landowner Boundaries**.

1.2.4 Field surveys of the woodland areas have been undertaken and have been used to determine the various woodland characteristics in order to identify the woodland removal required and recommended. This Woodland Report also sets out the area quantity (in hectares (ha)) to be compensatory planted to ensure no net loss of woodland is achieved as required by The Scottish Government's Policy on Control of Woodland Removal[2].

Requirement and Objectives of the Report

1.2.5 This Woodland Report details the works required to the woodland, including the felling and any restocking, due to the construction and operation of the Proposed Development.

1.2.6 The objectives of this Woodland Report are to:

- provide 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; and
- describe any mitigation measures proposed to address likely impacts relating to loss of woodland and windthrow risk and to meet The Scottish Government's Policy on Control of Woodland Removal by identifying the required quantity for compensatory planting.

Limitations and assumptions

1.2.7 All data included within this Woodland Report has been gathered from field surveys or desk-based assessments, which includes analysis of nationally held datasets, up to date aerial imagery and field measurements and data collection.

[1] UK Government, 1989. *Electricity Act 1989*. [Online] Available at: https://www.legislation.gov.uk/ukpga/1989/29/contents
[2] Forestry Commission Scotland, 2009. *Scottish Government's Control of woodland Removal Policy* [Online] Available at: https://www.forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal

1.2.8 Baseline data was derived from Scotland's environmental web[3] and Scottish Forestry map viewer[4]. The data sources identified in **paragraph 8.4.6** of **Volume 2, Chapter 8: Forestry** were also used to inform this Woodland Report.

1.2.9 Forests (or woodlands) comprise the land, of at least 0.5 ha (UKFS: V5 2023) under areas of trees with a canopy cover of at least 20%, or having the potential to achieve this, including the integral open space, as well as any felled areas awaiting replanting and are identified on the National Forest Inventory (NFI). The term 'forest' and 'forestry' for the purpose of this report is used to refer to areas that are typically coniferous that are managed for commercial timber production. The term 'wood' and 'woodlands' is used to refer to areas that are typically broadleaved and deciduous and not principally managed for timber production.

1.2.10 Woodland structure and age for the purpose of this Woodland Report have been categorised into an age class matrix:

- Young – young trees, generally less than 5 years old;
- Immature – trees between approximately 6-15 years old;
- Pole Stage – trees between 16 – 30 years old, primarily conifer;
- Mature – trees considered to be of felling age, 31 –50 years and over; and
- Established – established range of age classes with mature trees and an understory of younger trees.

1.2.11 In addition, to simplify the reader's understanding, a species matrix has been derived to categorise the species along the length of the Proposed Development:

- Felled – trees which have been felled and are awaiting restocking;
- Mixed Broadleaves – broadleaf trees containing a range of species including native trees such as Oak or Birch, may also contain non-native trees such as Sycamore or Chestnut;
- Mixed Woodland – a diverse mix of conifer and broadleaf trees with non-native species present;
- Native Mixed Woodland – mixed woodland containing native broadleaf species such as Oak or Birch and including elements of Scots Pine;
- Conifer – Conifer species; Sitka spruce, Norway spruce, Larch, Firs or Pines; and
- Scrub/Regen – areas of unmanaged land with low density, self-seeded trees. A mixture of species with non-native conifer and broadleaf trees present.

1.3 Woodland Property

1.3.1 Durris Forest is a state-owned forest managed by Forestry & Land Scotland (FLS). It lies ca. 1.5 km south of the village of Woodlands of Durris, with the centre point being at National Grid Reference (NGR) NO790928 (as shown in **Figure 8.2.32: Proposed Felling Requirements**). Most of Durris Forest consists of non-native conifers managed on a commercial basis, although there are some areas of broadleaves present managed for non-timber purposes on the property. Sitka spruce is the dominant species.

1.3.2 Durris Forest is covered by an approved Land Management Plan (LMP) which expires in 2034. The Plan Reference Number is LMP 22[5].

1.3.3 This report covers those areas of Durris Forest areas to be impacted by the proposed OHL alignment, excluding the outlying block in the north named Free Church Wood, which is covered by a separate woodland report (see **Woodland Report 8.2.33: Free Church Wood**).

[3] Scottish Forestry Land Information Search URL: https://map.environment.gov.scot/LIS_Agri/Agri.html
[4] Scottish Forestry Map Viewer URL: https://scottishforestry.maps.arcgis.com/apps/webappviewer/index.html?id=0d6125cfe892439ab0e5d0b74d9acc18
[5] Forestry and Land Scotland, 2024. *Durris Land Management Plan*. [Online] Available at: https://forestryandland.gov.scot/what-we-do/planning/active/durris-land-management-plan#:~:text=The%20LMP%20area%20covers%202290,clean%2Dup%20operations%20still%20ongoing.

1.4 Development Requirements

400 kV Overhead Line

1.4.1 The Study Area for this assessment is based on the required Operational Corridor (OC) (see **paragraphs 3.8.21 to 3.8.22** in **Volume 1, Chapter 3: Project Description**. The Applicant defines the OC as the area in which it has rights to remove woodland for the purposes of the safe construction, resilience and continued 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 with reference 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 to allow for a mature tree falling towards the OHL at the mid-point on an OHL span between two Towers, taking account of topography and tree height at maturity. Standard falling distance for a mature conifer tree is considered to be a minimum of 30 m. Where the OC passes through areas of native broadleaved woodland, it is noted that the width of woodland may be reduced, due to the general lower height and characteristics of the tree species present and as will be detailed in the Woodland Retention Plan.

1.4.2 The 400 kV OHL standard tower dimensions for the Proposed Development have a width of 11.2 m at the widest part (crossarm) of the tower ie from outside conductor to outside conductor, in addition to this the safety vicinity zone from each conductor is a 5.3 m radius around the conductor.

1.4.3 The OHL infrastructure and minimum safety clearance distance is therefore 90 m (45 m either side of the OHL centreline) and this has been utilised to calculate the area of the OC. In some cases, such as angle towers the requirement may be slightly in excess of this distance, however the average minimum distance has been used in this assessment.

Access Track Route Design

1.4.4 Felling for access track-related requirements to facilitate tower construction will encroach into the forest at several locations. Where tree felling is required for the purposes of facilitating the construction and/or use of any tracks, and these works will take place outside of the OC, these are detailed below:

- access to Tower N67 from the west will be via an upgrade of an existing track to permanent stone track and will pass through non-native conifer forest (Sitka spruce, planted in 1992);
- access to Towers N72 to N75 will be via short spurs of new permanent stone track, stemming from an existing permanent stone track situated within an existing OC for an existing OHL; and
- access to Towers N76 to N81 will be via short spurs of new permanent stone track, stemming from an upgrade of an existing stone track to the west which follows the OC of the existing adjacent OHL.

1.4.5 Temporary woodland removal will be required to facilitate 'holding out positions' tension towers require a temporary 'holding out position' to raise the tower working platforms which would be utilised when stringing the conductors. This platform is winched into position by a tractor at one and a half the tower height away and once in position gets locked off and attached to concrete sledges.

1.5 Woodland Characteristics

1.5.1 Durris Forest is managed primarily on a commercial basis for the purposes of timber provision[6]. Non-native conifers are the dominant species, with broadleaves and open ground comprising a relatively small proportion of the forest area.

1.5.2 The forest has a diverse age structure, with several age classes represented within those parts of the forest to be impacted by the proposed OHL alignment. Maximum top height for these blocks is ca. 30 – 35 m, and minimum top height is zero, on account of there being several areas awaiting restock planting along the OC.

[6] This data is sourced from the Durris Forest LMP.

1.5.3 In addition to commercial forestry activities, there is significant use of the forest for recreational purposes, with walkers and cyclists being most common.

1.5.4 A desk-based study of the woodland areas was conducted, utilising web-based data provided by Scottish Forestry[3] and referencing the Scottish Government's Ancient Woodland Inventory, to identify current woodland environmental designations and classification, the findings of which are detailed in **Table 1: Woodland type affected by the Proposed Development**.

1.5.5 The Scottish Forestry Map Viewer[4] provides spatial data on the Native Woodland Survey of Scotland[7] and classifies the woodland types into four categories:

- Native woodland[8];
- Nearly-native woodland[9];
- Open land habitat[10]; and
- Plantations on Ancient Woodland Sites (PAWS)[11].

1.5.6 No areas included within the AWI are included within or immediately adjacent to the OHL alignment through the area covered by this Woodland Report.

1.5.7 The NWSS indicates that a single area of Native Woodland will be impacted by the Proposed Development and its associated felling requirement. This is a 0.94 ha stand of native Scots pine, located between Towers N70 and N71. This stand falls under the Immature age classification (top height ca. 20 m). It should be noted that upon surveying the site, no woodland resembling a Native Pinewood was found, with non-native larch being the dominant species, alongside Scots pine and Sitka spruce as minority components.

Table 1: Woodland type affected by the Proposed Development

Woodland	Ancient semi-natural native broadleaved woodland (ASNW) 1a	Ancient semi-natural native broadleaved woodland (ASNW) 2a	Long Established of Plantation Origin (LEPO) (1b – 1750)	Long Established of Plantation Origin (LEPO) (2b – 1860)	Other Woodlands (Roy)	Native broadleaved woodland	Total classified woodland area
Durris	-	-	-	-	-	0.94 ha	**0.94 ha**

* - Rounding errors can occur

[7] Scottish Forestry Native Woodland Survey of Scotland: Glossary of Terms; URL: https://www.forestry.gov.scot/publications/75-native-woodland-survey-of-scotland-glossary-of-terms/viewdocument/75
[8] Native Woodland – woods where the canopy cover is composed mainly of native species (ie over 50%)
[9] 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.
[10] Open Land Habitat – areas with <20% canopy cover of trees and shrubs adjoining a native woodland.
[11] PAWS - Plantations 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 woods.

Plate 1: View from Tower N74 towards N73 facing NW.

Plate 2: View from Tower N73 towards Tower N72 facing NW.

1.5.8 **Plates 1** and **2** show the non-native conifer nature of the forest edge strip alongside the existing OHL OC. These illustrate that an existing access track is already in place, and that it runs along an existing OHL OC.

Plate 3: View from Tower N73 towards Tower N72 facing NW.

1.5.9 **Plate 3** shows the supposed Native Pinewood, which has larch as the dominant species, and Sitka spruce as a significant proportion, alongside some Scots pine of undetermined provenance.

1.6 Windthrow Risk Impact

1.6.1 The site extends from lower, undulating ground in the north to higher upland terrain in the middle and southern reaches of the property, with the bulk of the affected forest falling under the latter. The predominant soil types[12] are humus-iron podzols, non-calcareous gleys, peaty podzols, and dystrophic blanket peat.

1.6.2 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 is 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 from either, observations at a site level or via an approved management plan. Reference is also made to Forest GALES[13] 2.5 Forest Research decision support system. Felling outwith the OC to a windfirm boundary is termed Management Felling and is presented within **Figure 8.2.32: Proposed Felling Requirements**.

1.6.3 The woodland site affected by the Proposed Development has a varying 'Detailed Aspect Method of Scoring' (DAMS)[14] windthrow hazard class score, with this being 10 in the north, and extends to 12 in the south. This gives it a risk classification of being sheltered, with a low risk of windblow occurring.

1.7 Woodland Management Impact

1.7.1 The Proposed Development will create additional challenges for the future management of the forest as it dissects existing management coupes. An electrical hazard will be introduced adjacent to each of these woodland blocks,

[12] As per the National Soil Map of Scotland (1:250,000), accessed at https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/.
[13] Forest Research (2025). Available at: http://www.forestdss.org.uk/geoforestdss/. The Detailed Aspect Method of Scoring (DAMS) is a system used to assess wind exposure in forestry and land management. It provides a numerical score that quantifies the level of exposure a site experiences based on factors such as elevation, topography, and aspect (the direction a slope faces). The DAMS score helps foresters predict wind risk, which is crucial for understanding tree stability, growth potential, and the likelihood of windthrow (trees being uprooted or broken by wind) The scoring system ranges from 0 to 24, with higher scores indicating more exposure to wind.
[14] Detailed Aspect method of Scoring (DAMS) Ref. Forest Research, "Forest Gales software programme" and Forestry Commission Leaflet 85 "Windthrow Hazard Classification".

creating an additional challenge for future forest management. The constraint associated with the electrical hazard will be reduced by regular maintenance of the OC, which will avoid the incidences of "Red Zone"[15] trees.

1.7.2 The proposed OHL furthermore introduces an electrical hazard, but the constraint associated with the electrical hazard will be reduced by regular maintenance of the OC which will avoid the incidences of "Red Zone" trees.

1.7.3 Where the OHL alignment crosses any of the existing internal forest road network, driveways and/or agricultural access tracks, the OHL will be built to comply with statutory clearances above these, which will reduce the hazard in respect of public traffic and/or future timber haulage. The OHL alignment 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, thus providing a safe OHL crossing point(s) for future working within the woodlands.

1.7.4 The Proposed Development will result in the permanent removal of existing mature conifer and broadleaved woodland from the OC. This will reduce the productive forestry land available for planting within the woodland property area, as the OC will require to be kept clear of trees.

1.7.5 During the construction phase, there will be a level of disruption to the undertaking of routine forestry management activities by the landowners on the woodland property. This will be project managed through communication and agreement with them.

1.7.6 The OHL alignment is likely to have moderate impact for the future management. This is tempered by the LMP indicating that the woodland blocks along the alignment are currently managed under a clearfell silvicultural regime, so the primary impact will be the bringing forward of the felling date.

1.7.7 Management felling will be required outside the OC along part of the alignment covered by this woodland report, as indicated on **Figure 8.2:32: Proposed Felling Requirements**. This will reduce the risk of windblow occurring.

1.8 Mitigation Opportunities

1.8.1 The OC woodland removal area is required for the construction and functioning of the new OHL infrastructure. Reference to **Section 1.10: Compensatory Planting**, will fully mitigate the OC woodland removal area by replanting the area quantity (hectares) of woodland removed.

1.8.2 The management felling areas will be replanted by the landowner, in-line with the Scottish Forestry felling licence regulations of the area felled must be replanted.

1.9 Woodland Removal Impact

1.9.1 Woodland removal area calculations are approximate and have been rounded up to reflect the worst case scenario for removal. Woodland felling will be reduced as much as possible through mitigation.

Table 2: Woodland Removal for Infrastructure

Item	Woodland Type	Area
Infrastructure felling	Felled	22.26
	Conifer plantation	14.55
Scrub/regen clearance	Scrub/regen	5.07

Table 3: Compensatory Planting

Item	Woodland Type	Area
Compensatory Planting Area	Mixed conifer or mixed broadleaves	36.81 ha

[15] 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: https://ukfisa.com/

Table 4: Woodland Removal Impact of Infrastructure

Item	Woodland Type	Area
Total Loss of Woodland Area		36.81 ha
Total Compensatory Planting Area		36.81 ha
Total Net Loss of Woodland Area		**0.00 ha**

Table 5: Woodland Removal for Management Felling

Item	Woodland Type	Area
Management Felling		9.06 ha
Replanting/Restocking		9.06 ha
Net Loss of Woodland Area		**0.00 ha**
Note. Felling and restocking approval is via Scottish Forestry Felling Permission application process or Long-Term Forest Plan application or amendment process. This is to be sought by the landowner on whose land the management felling takes place, who is also responsible for all associated restocking operations.		

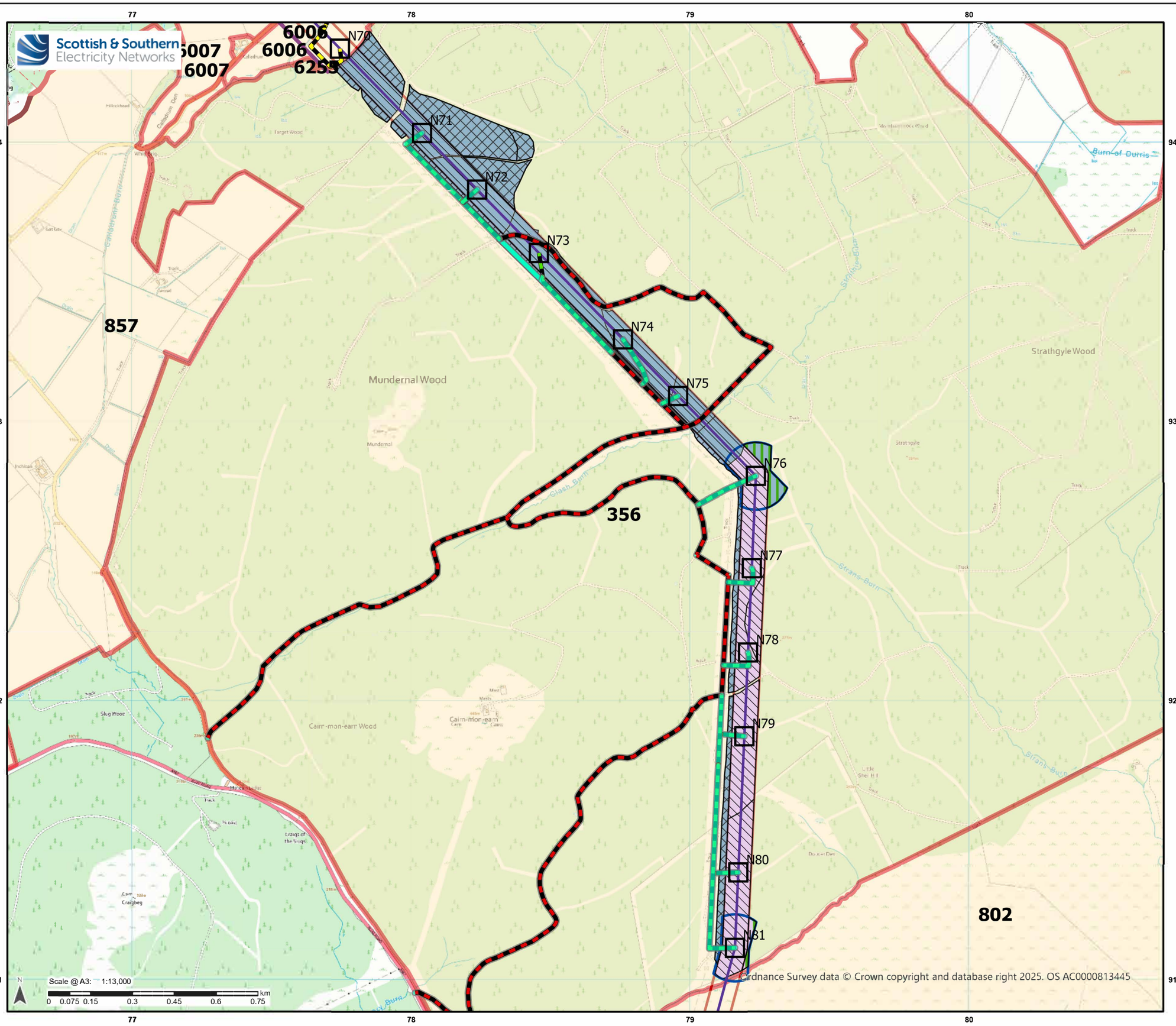
1.10 Compensatory Planting

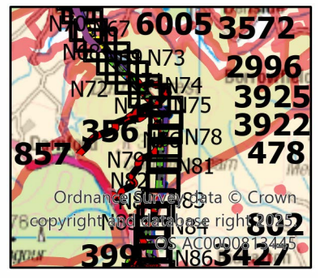
1.10.1 Compensatory planting to achieve the area quantity (hectares) of woodland removal, referenced above will be provided for the OHL and access track OC area and will be in accordance with the Scottish Government's Policy on Control of Woodland Removal of no net loss of woodland.

1.10.2 Compensatory planting will be detailed within **Volume 5, Appendix 8.1: Compensatory Planting Management Strategy**.

1.10.3 Areas of tree felling required to facilitate construction (where necessary) outside of the OC, temporary access tracks, holding out positions and EPZ (Equi-potential zones) and areas felled to a windfirm boundary will be replanted on site. Replanting of these sites will follow the conditions set out in the Scottish Forestry approved felling permission (where required) and will be the responsibility of the landowner.

Figure 8.1.32
Landowner Boundaries





- Landowner Boundaries
- Proposed Tower - 400kV (with tower number)
- Propoosed OHL Alignment - 400kV
- 90m Operational Corridor
- ACCESS - EXISTING UPGRADE
- ACCESS - NEW STONE PERM
- ACCESS - NEW STONE TEMP
- ALTERNATIVE NEW STONE PERM
- Proposed Conductor Pulling Area (EPZ)
- MES-SSEN perm alternative track buffer

Proposed Felling requirements

- OC
- MF
- Infrastructure

Woodland Type

- CON
- Felled Conifer
- SpecialArrangementOHLs

Project No:

Project:

Title:

Drawn by:

Date: 16/07/2025

Drawing:

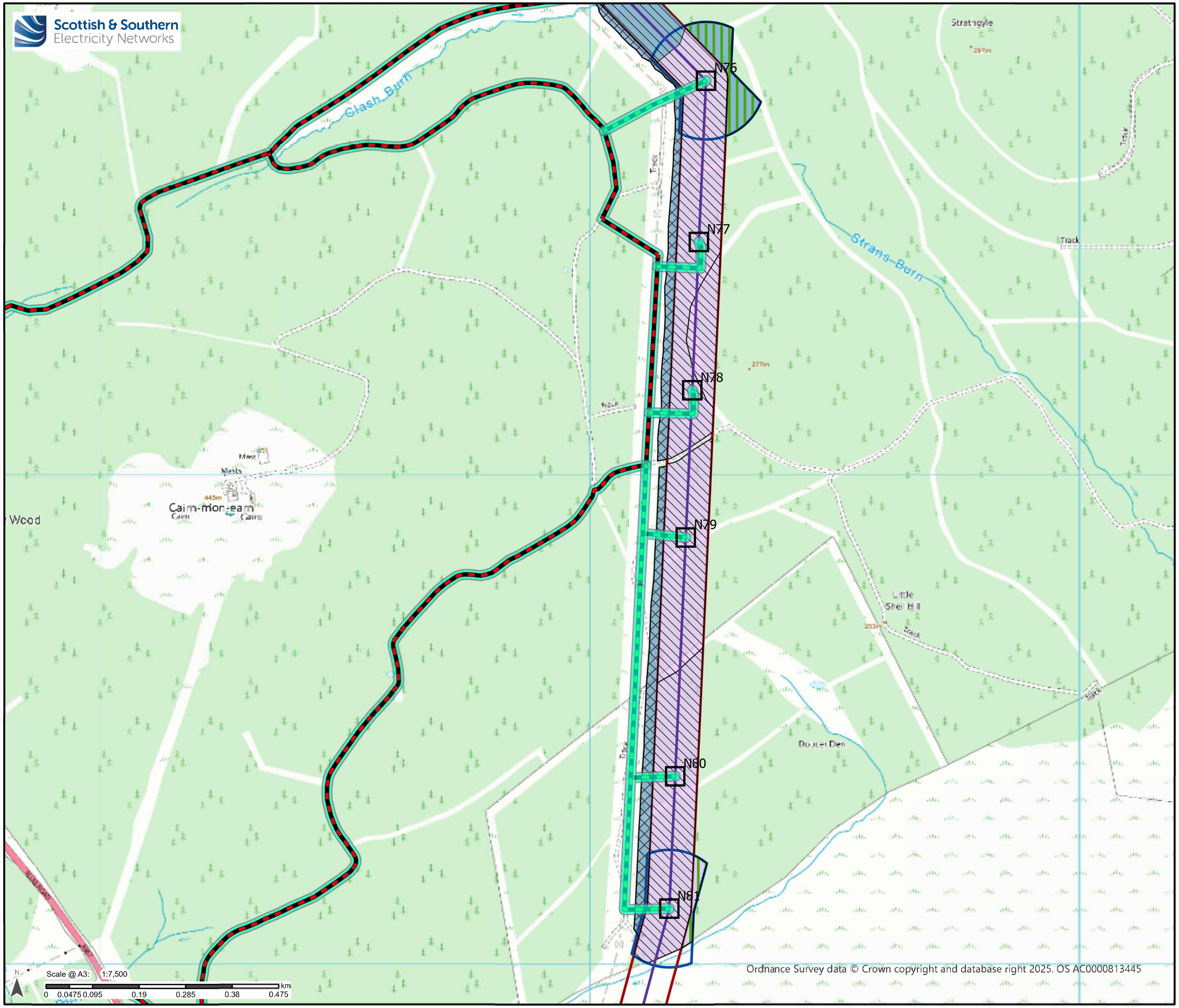


Figure 8.2.32a Proposed felling requirements

- Proposed Tower - 400kV (with tower number)
- Propoosed OHL Alignment - 400kV
- 90m Operational Corridor
- ACCESS - EXISTING UPGRADE
- ACCESS - NEW STONE PERM
- Proposed Conductor Pulling Area (EPZ)

Proposed Felling requirements

- OC
- MF
- Infrastructure

Woodland Type

- CON
- Felled Conifer

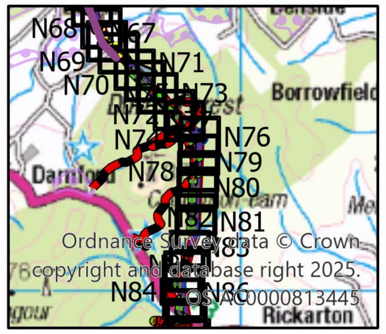


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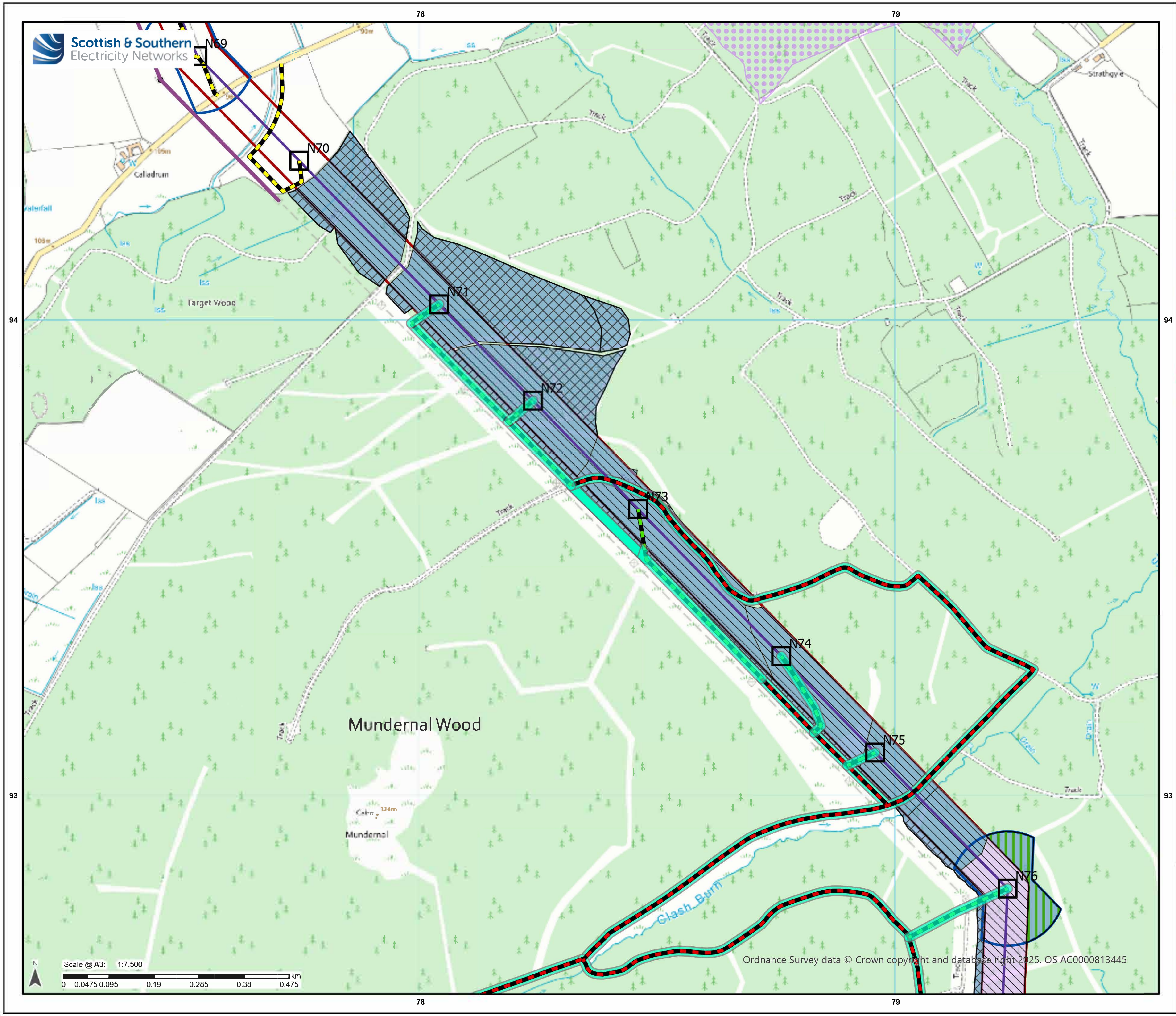
Figure 8.2.32b Proposed felling requirements



Proposed Tower - 400kV (with tower number)

Propoosed OHL Alignment - 400kV

90m Operational Corridor

Ancient Woodland Inventory

Ancient (of semi-natural origin)

Long-Established (of plantation origin)

ACCESS - EXISTING UPGRADE

ACCESS - NEW STONE PERM

ACCESS - NEW STONE TEMP

ALTERNATIVE NEW STONE PERM

Proposed Conductor Pulling Area (EPZ)

MES-SSEN perm alternative track buffer

Kintore Fetteresson Diversion

Proposed Felling requirements

OC

MF

Infrastructure

Woodland Type

CON

Felled Conifer

Kintore___Fetteresso_275_

SpecialArrangementOHLs

Project No:

Project:

Title:

Drawn by:

Date: 16/07/2025

Drawing: