

**Beauly to Blackhillock to New Deer to
Peterhead 400 kV Project
Environmental Impact Assessment Report
Volume 5 | Appendices**

Appendix 12.1.41 – Woodland Report Parcel 1032



APPENDIX 12.1.41: Woodland Report Parcel 1032

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1 Introduction

- 1.1.1 This Appendix presents information relevant to the Beauly to Blackhillock to New Deer to Peterhead 400 kV Overhead Line (OHL) Project (the Proposed Development). It should be read in conjunction with the Environmental Impact Assessment (EIA) Report, specifically **Chapter 12: Forestry**, for full details of the Proposed Development.
- 1.1.2 As part of the EIA, it has been identified that construction of the Proposed OHL and the associated access tracks would cross several woodland areas within private or publicly owned landholdings.
- 1.1.3 This woodland report has been prepared to assess the potential impacts of the Proposed Development on Woodland, Parcel 1032. It includes the requirements for woodland removal and management recommendations to mitigate the impact of the woodland removal. The report provides an overview of the characteristics of the affected woodland, including woodland composition, site conditions, soil conditions, exposure levels and existing felling approvals. The report also provides details of existing infrastructure, and potential constraints related to forestry operations. It aims to inform decision-making by identifying key environmental and logistical considerations associated with the Proposed Development. Additionally, it evaluates the feasibility of timber extraction and access whilst highlighting necessary mitigation measures to minimise disruption to the woodland ecosystem and surrounding landscape.
- 1.1.4 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 quantity hectares (ha) to be compensatory planted to ensure no net loss of woodland is achieved.

2 Woodland property

- 2.1.1 The landholding property boundaries are identified in **Figure 12.1.41a: Parcel 1032 Location Map**. Ruallan & Rehiran woodlands, NH 811531 443950 are situated approximately 6.5 km southwest of the town of Cawdor in Nairnshire. They are accessed from an estate track leading off the U1169 Cantray Bridge - Galcantray - Little Urchany road at Drummourine and heading southwest past Dalcharn.

3 Development Requirements

3.1 400 kV Overhead Line Infrastructure Requirements

- 3.1.1 The Study Area for this assessment initially focussed on a 100 m width either side of the centreline of the Proposed OHL Alignment and ancillary infrastructure, where relevant, prior to the identification of an Operational Corridor (OC). 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) 2002¹ and The Electricity Act 1989². The OC is defined based on two different factors as follows:
- The first factor in which the OC is determined is 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 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 45 m. Where the OC passes through areas of broadleaved woodland, it is noted that the width of woodland removal is likely to be reduced, due to the general lower height and characteristics of the tree species present.

¹ UK Gov (2002). The Electricity Safety, Quality and Continuity Regulations 2002. Available at: [The Electricity Safety, Quality and Continuity Regulations 2002](#)

² UK Gov (1989). Electricity Act 1989. Available at: [Electricity Act 1989](#)

- The second factor that is considered is the maximum distance that the OHL conductors can blow out from the tower under a 1 in 50-year return period wind condition, plus the required electrical clearance distance. This is to ensure that the OHL conductors do not come into contact with, or come close enough to, any object that could result in an electrical clearance infringement. This conductor blowout distance varies between each tower dependent on span length and must therefore be considered on a span-by-span basis.

- 3.1.2 The typical OC required within areas of commercial conifer forestry for a 400 kV OHL is 90 m (i.e. 45 m either side of the centre line). Where the OC passes through areas of broadleaved woodland, it is proposed that the extent of woodland removal is likely to be reduced due to the lower height of the tree species present. The OC for the Proposed OHL through areas of broadleaved woodland has been reduced to 70 m (i.e. 35 m either side of the centre line of the OHL). This has been based on the likely height of the woodland at maturity. Where any woodland removal within the OC is proposed to be reduced from the 45 m either side of the line, a site-specific assessment must be carried out to confirm that the conductor blowout does not exceed the OC width. If the conductor blowout exceeds the OC, then the width of the OC must be increased to meet the requirements of the blowout assessment as a minimum. This will ensure compliance with ESQCR requirements and that the required safety clearances are maintained.
- 3.1.3 A resilient OC of 70 m in width is required throughout the woodland area within Woodland Parcel 1032 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.41b: Parcel 1032 Proposed Felling Requirement**.

3.2 Access Track Route Design

- 3.2.1 A permanent access track between towers between CB4-3A and CB4-4A is proposed within the OC of the Proposed OHL. Between CB4-3A and CB4-1 an existing hill track access, largely outwith the OC of the OHL, is proposed to be upgraded. Between towers CB3-21 and CB4-1, and outwith the OC of the Proposed OHL, an existing hill track is proposed as a permanent access. Scots pine on this route may require to be high pruned to ensure access.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland was surveyed in January 2025. In this parcel the Proposed OHL crosses over two areas of predominantly Scots pine (SP) woodland, both appearing to have naturally regenerated from previous stands. The eastern stand at Grid Reference NH 812080 443811 lies on the banks of the Allt Dearg and the younger western stand sites on the Allt na h-Athais at Grid Reference NH 807031 440371.
- 4.1.2 The Ecological Site Classification³ describes the site as having a cool, moderately exposed and wet climate. The soils have a moderately dry moisture status and are of very poor nutrient status.
- 4.1.3 The area is moderately exposed with a maximum Detailed Aspect Method of Scoring (DAMS) score of 13⁴, indicating some susceptibility to wind exposure but not extreme conditions.
- 4.1.4 The Soil Map of Scotland⁵ identifies the soils as being predominantly peaty gleyed podsols with parent material of partially sorted gravelly fine sands derived from acid schists and granites.

³ Forest Research (n.d.). Ecological Site Classification (Tree Species). Available at: <http://www.forestdss.org.uk/geoforestdss/>

⁴ Forest Research (n.d.). 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.

⁵ Scotland's Soils (n.d.). National Soil Map of Scotland. Available at: <https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/>

- 4.1.5 The woodlands do not appear in the Scottish Ancient Woodland Inventory⁶.
- 4.1.6 The woodlands are not identified in the Native Woodland Survey of Scotland⁷
- 4.1.7 To the west of tower CB4-3A the woodland comprises predominantly SP on the steep banks the Allt Dearg. Tree
- 4.1.8 In the working area of tower CB4-1 there are small groups of naturally regenerated SP and Downy birch (DBI) to 5 m in height.
- 4.1.9 On the banks of the Allt na h-Athais, SP has regenerated and is now showing a variety of age classes from thicket stage to mature individual trees, with varied stocking density.
- 4.1.10 Considering the volume, species, quality, and location mulching with an element of hand felling is recommended. Track access improvements will be required prior to mature conifer felling, to facilitate removal. The U1169 public road is identified as a Consultation Route in the Timber Transport Forum's Agreed Routes Map⁸⁹.

4.2 Photo Record – Operational Corridor Assessment

4.2.1 The following photographs provide a visual record of key locations along the OC. Each image illustrates existing vegetation types, land use, and notable landscape features relevant to the planning and management of the OC. Particular attention has been given to areas of mature woodland, natural regeneration, and locations where proposed works may intersect with ecologically or visually sensitive habitats. The photos are intended to support site assessments and inform mitigation strategies.

⁶ NatureScot (2023). A guide to understanding the Scottish Ancient Woodland Inventory (AWI). Available at: <https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi>

⁷ Scottish Forestry (n.d.). Native Woodland Survey of Scotland. Available at: <https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/native-woodland-survey-of-scotland-nwss>

⁸ Timber Transport Forum (n.d.). Introduction to Agreed Routes Map. Available at: <https://timbertransportforum.org.uk/agreed-routes-map/introduction-to-agreed-routes-map/>

⁹ Roads which are key to timber extraction but, for a variety of reasons, are not up to Agreed Route Standard. Consultation with the Local Authority is required before any timber haulage takes place and it may be necessary to limit the amount, timing or frequency of timber haulage, or to specify lower impact vehicles to prevent damage. All minor roads (B, C and unclassified roads) should be treated as Consultation Routes by default unless covered by one of the other categories (e.g. Severely Restricted Route).

Photo 1: View from NH 811971 443672 between towers CB4-2A and CB4-3A, looking northeast. Showing SP which are identified for crown reduction.



Photo 2: View at NH 808021 441046 looking southwest showing the site of tower CB4-1B, with young SP in the background.



Photo 3: View at NH 807031 4400462 between towers CB3-21 and CB4-1 looking southwest over naturally regenerated SP with varied age structure, which are identified for crown reduction.



5 Windblow Risk

- 5.1.1 It is acknowledged that the creation of the OC would result in wider potential indirect effects on the surrounding woodland areas. These areas would be subject to potential increased risk of damage (windblow). Each woodland report identifies further areas of felling to a windfirm edge, defined as 'Management Felling' (categorised as an indirect secondary impact), which is covered in more detail in **Chapter 12: Forestry** in **Section 12.4**. Management felling would be considered as part of any application for felling permission. This would provide restocking as agreed with Scottish Forestry which would result in balancing the loss of woodland. Any felling undertaken outwith the OC would be solely under the control of the relevant landowner (and not the Applicant). It is the intention of the Applicant to encourage the landowners to follow this good practice in terms of redesign of their current Long-Term Forest Plans, which in-turn would aim to follow UK Forestry Standards (UKFS)¹⁰ for the implementation of the works required.
- 5.1.2 There is minimal risk of windblow as a result of the open grown character of adjacent trees at these locations.

6 Woodland Management Impact

- 6.1.1 In the long-term woodland management will be impacted as the area of land available for woodland is reduced.
- 6.1.2 To balance habitat conservation with infrastructure requirements, it is proposed to crown reduce sections of woodland rather than conduct full-scale felling. This approach aims to maintain the ecological integrity of the woodland while ensuring compliance with safety and operational requirements.

¹⁰ Scottish Forestry (2024). UK Forestry Standard (UKFS). Available at: <https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs> (Accessed 15 August 2025).

- 6.1.3 The infrastructure built for this section of the OHL could provide a benefit to the landowner for future forest management as it could provide long-term access. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner(s).
- 6.1.4 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 (reference Forest Industry Safety Accord (FISA) 804 “Electricity at Work: Forestry”¹¹).
- 6.1.5 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0.12 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 Selective Crown Reduction – Focused on mature trees with high ecological value, ensuring that reduction is carried out in a manner that retains structural diversity.
- 7.1.2 Retention of Deadwood and Pruned Material – Where possible, pruned branches and deadwood should be left on-site to enhance biodiversity, providing habitat for insects, fungi, and small mammals.
- 7.1.3 Monitoring and Adaptive Management – Regular assessment of tree health and habitat response to inform future management decisions.

8 Net Effect / Summary

- 8.1.1 **Tables 8.1 to 8.4** outline the operational requirements for forestry management within the OC between tower CB4-1 to CB4-4A. They detail the areas designated for clear felling within the OC and forest design considerations.

Table 8.1: Woodland removal for Infrastructure, within OC

Item	Woodland Type	Area (ha)
OC felling	Native Broadleaved Woodland (70 m)	0.12
OC felling	Mixed Conifer Woodland (90m)	0.02
OC crown reduction	Mixed Conifer Woodland (90m)	0.14
Total area		0.27

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Native Broadleaved Woodland	0.12
Compensatory Planting Area	Mixed Conifer Woodland	0.02
Total area		0.14

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	0.12
Total Compensatory Planting Area	0.12
Total Net Loss of Woodland Area	0.00

¹¹ Forest Industry Safety Accord (2025). FISA Safety Guide 804 – Electricity at Work: Forestry. Available at: <https://ukfisa.com/Safety/Safety-Guides/fisa-804> (Accessed: 15 August 2025).

Table 8.4: Woodland removal for Management Felling, outwith OC

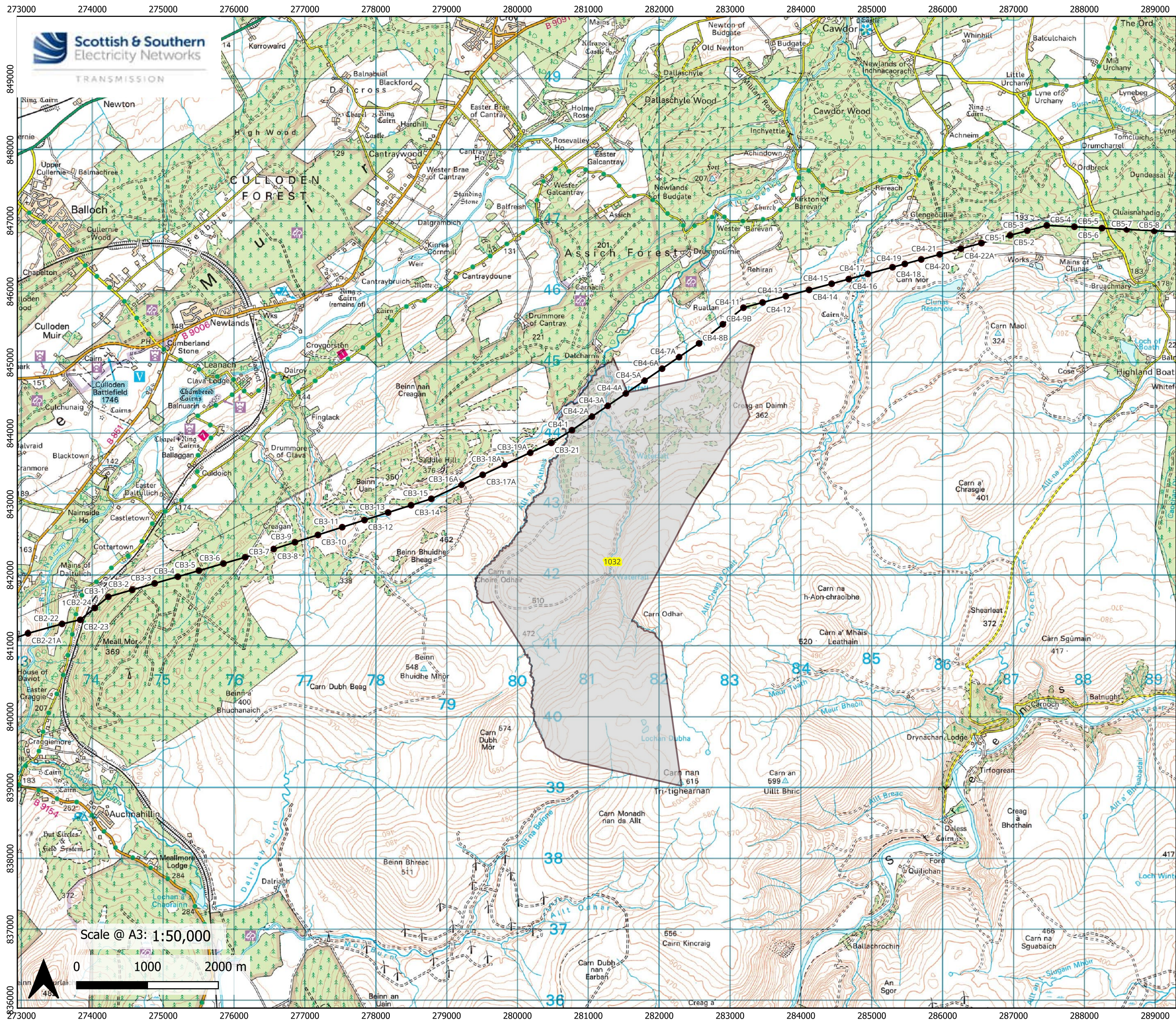
Item	Woodland Type	Area (ha)
Management Felling		0.00
Replanting / Restocking Opportunities		0.00
Total Net Loss of Woodland Area		0.00

9 Compensatory Planting

- 9.1.1 Only areas directly impacted by the OC will be included in the compensatory planting total, in accordance with the Control of Woodland Removal Policy (CoWRP)¹². This policy ensures that woodland loss due to development is mitigated by appropriate replanting or regeneration efforts, but it specifically applies to areas where tree removal is necessary for the Proposed Development. See **Appendix 12.3: Compensatory Planting Strategy**.
- 9.1.2 Any additional felling outside the OC, such as areas cleared for windblow management or forest design improvements, falls under the responsibility of the landowner and is not included in the compensatory planting requirements. Instead, these areas may be replanted under a forest plan revision or felling license at the landowner's discretion. This approach aligns with national forestry guidelines, balancing infrastructure development with sustainable woodland management.
- 9.1.3 The total amount of net felling requiring compensation under the CoWRP is 0.12 ha.

In order to provide a greater balance limiting long-term impacts on forestry interests it is proposed that the majority of this woodland loss is compensated via off-site compensatory planting within the same local authority area. It is proposed that full details of the areas subject to this off-site compensatory planting is notified to Scottish Forestry prior to energising the OHL.

¹² Forestry Commission Scotland (2009). Control of Woodland Removal Policy. Available at: <https://www.forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal/viewdocument/285>



Legend

- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- ▭ Landownership Boundary/Parcel

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Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV
OHL Project

Title:
Figure 12.1.41a Parcel 1032 Location Map

Drawn by: LA

