

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

**Appendix 12.1.29: Woodland Report Parcel 3550,
Essich**



APPENDIX 12.1.29: Woodland Report Parcel 3550, Essich

1	Introduction.....	2
2	Woodland Property.....	2
3	Development Requirements.....	2
3.1	400kV Overhead Line Infrastructure Requirements	2
3.2	Access Track Route Design.....	3
4	Woodland Characteristics.....	3
4.1	Woodland Composition and Site Conditions	3
4.2	Photo Record – Operational Corridor Assessment.....	4
5	Windblow Risk.....	7
6	Woodland Management Impact.....	7
7	Mitigation Opportunities.....	8
7.1	Woodland Mitigation Measures.....	8
7.2	Restructuring.....	8
7.3	Restocking	8
8	Net Effect / Summary.....	8
9	Compensatory Planting	9

Appendix Figures

Figure 12.1.29a: Parcel 3550 Location Map

Figure 12.1.29b: Parcel 3550 Proposed Felling Requirement

1 Introduction

- 1.1.1 This Appendix presents information relevant to the Beauly to Blackhillock to New Deer to Peterhead 400 kV Proposed (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 Alignment and the associated access tracks would cross several woodland areas within private or publicly owned landholdings.
- 1.1.3 This woodland report assesses the potential effects of the Proposed Development on Parcel 3550, Essich. 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 hectare (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 12.1.29a: Parcel 3550 Location Map**. The woodlands owned by the Scottish Government are found 2.5 km south Inverness in the Highland council area (NH 656300 394781). They consist of several small areas of native woodland.

3 Development Requirements

3.1 400kV 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.
 - 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.

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](#)

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 Alignment 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 within the native broadleaved woodland within Woodland Parcel 3550 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.29b: Parcel 3550 Proposed Felling Requirement**.

3.2 Access Track Route Design

- 3.2.1 The tracks associated with this section of the OHL are crossing open ground, outwith the woodland parcel.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodlands were surveyed in November 2024. The woodland furthest west consists of mature Downy birch (DBI), Hazel (HAZ) coppice, and mature Ash (AH). The DBI and AH are approximately 13 meters and 18 meters respectively whereas the HAZ, as expected of the species, is up to 6 meters in height and could therefore potentially be retained.
- 4.1.2 Heading east along the OC across the field, a strip of DBI, Rowan (ROW), AH, and a Scots pine (SP) is found.
- 4.1.3 Further east again, above the Big Burn or Holm burn, a mixed native woodland of Sessile oak (SOK), ROW, DBI, AH, and SP is found. The trees are mature and tall but due to the gully formed by the Holm burn, does not exceed the height of the surrounding fields by more than 10 meters.
- 4.1.4 The section of Proposed OHL Alignment is between sheltered and moderately exposed with a maximum Detailed Aspect Method of Scoring (DAMS) score of 12^{3,4}.
- 4.1.5 The National Soil Map of Scotland⁵ identifies the site as being predominantly humus iron podzols. Soil conditions throughout the ownership are good with high nutrient availability and good rooting.
- 4.1.6 The Ecological Site Classification (ESC)⁶ identifies the site as having a cool, sheltered and moist climate. The soils have a moist moisture status and a poor nutrient status.
- 4.1.7 The woodlands appear in the Native Woodland Survey of Scotland⁷.

³ Forest Research (2025). Available at: <http://www.forestdss.org.uk/geoforestdss/>

⁴ 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 Scottish Government (2024). National soil map of Scotland. Available at: <https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/>

⁶ Forest Research Decision Support Tools. Ecological Site Classification. Available at: <http://www.forestdss.org.uk/geoforestdss/>

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

- 4.1.8 There are no environmental designations on the area affected by the Proposed OHL Alignment.
- 4.1.9 The landscape is characterised by the rolling farmland and woodland south of Inverness.
- 4.1.10 There is no record of the area being covered under a forest plan or felling permission.
- 4.1.11 The Proposed OHL Alignment consists of a section of OC between towers CB1-9 and CB1-12. The proposed tracks are within the OC or over agricultural land.
- 4.1.12 There is limited existing infrastructure, but the landform allows for access to be created easily in the western section of this parcel. The heavy gully in the eastern part of this parcel will make timber harvesting and extraction more complex. Existing access points to the unclassified C1064 Inverness to Ashie road will need to be upgraded to facilitate timber extraction, this is classified as a Consultation Route by the Timber Transport Forum⁸⁹. Due to the access restrictions, it is recommended that the proposed temporary access tracks are installed prior to felling to facilitate extraction
- 4.1.13 Considering the volume, species, and quality it is recommended trees are felled by hand and extracted using small equipment. Within the gully, timber could be felled and left for biodiversity value.

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.

⁸ The Timber Transport Forum. 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: Individual Downy birch trees among Hazel coppice (NH 651553 396331, looking east)



Photo 2: Ash trees east of Hazel coppice (NH 652223 395989, looking southeast)



Photo 3: Remnant field boundary along field edge, including Downy birch and Scots pine (NH 656523 394763, looking west)



Photo 4: Steep bank above Holm burn with mixed native woodland including Sessile oak (NH 659023 393141, looking northeast)



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 the **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 Standard (UKFS)¹⁰ for the implementation of the works required.
- 5.1.2 There is low risk of windblow in this area of woodland. The individual stability of the trees is high because of the low tree density and mixed age class. It is therefore recommended no additional felling is to take place.

6 Woodland Management Impact

- 6.1.1 Considering the current land use, it is expected the Proposed OHL Alignment will have a minimal impact on the forest management of the strip of land in the long term.
- 6.1.2 The infrastructure built for this section of the OHL could provide a benefit to the landowner for future land management. However, considering the current management and existing access opportunities, this is unlikely to be of significant benefit to the landowner.

¹⁰ Scottish Forestry (2024). Available online at: <https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs>

- 6.1.3 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 Alignment 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 broadleaved woodland resulting from the proposed alignment is 1.03 hectares (ha).

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 The Holm Burn or Big Burn is found within a steep gully, it is therefore unlikely that the treetops would grow more than five to ten meters above the surrounding fields. LIDAR could be used to determine the extent of necessary felling within this gully.
- 7.1.2 Areas of hazel coppice are unlikely to grow higher than five to ten meters, retention could be considered to reduce the negative impact of the Proposed OHL Alignment on the woodlands.

7.2 Restructuring

- 7.2.1 Considering the mixed nature of the woodland, both in species and age, there will be a low impact on woodland structure.
- 7.2.2 The felling of the OC for the development will create new green edges, which will allow the landowner to work to in the future if that is desired.

7.3 Restocking

- 7.3.1 There will be no restocking obligation for the landowner as there is no felling outwith the OC.

8 Net Effect / Summary

- 8.1.1 **Tables 8.1 to 8.4** outline the operational requirements for forestry management within the OC between towers CB1-9 and CB1-12. 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 mixed broadleaves (70 m)	1.03
Total area		1.03

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Native mixed broadleaves	1.03
Total area		1.03

¹¹ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: <https://ukfisa.com/Safety/Safety-Guides/fisa-804>

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	1.03
Total Compensatory Planting Area	1.03
Total Net Loss of Woodland Area	0.00

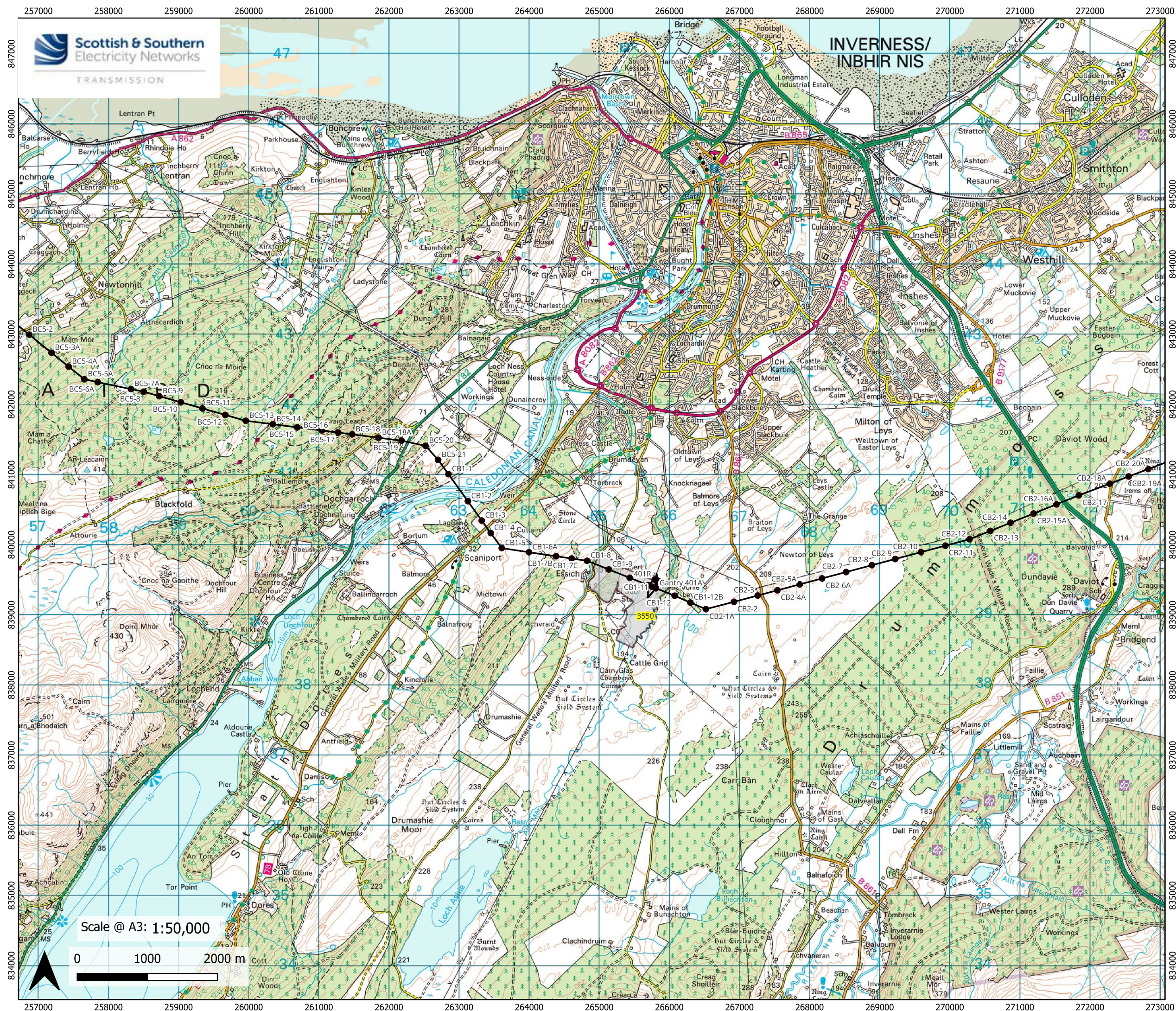
Table 8.4: Woodland removal for Management Felling, outwith OC

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

9 Compensatory Planting

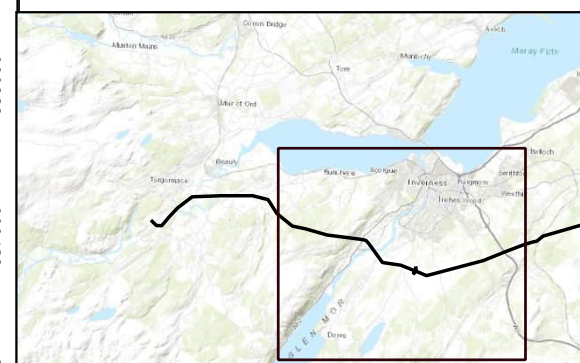
- 9.1.1 Only areas directly impacted by the OC will be included in the compensatory planting total, in accordance with the Control of Woodland Removal Policy (CoWRP)¹². This policy ensures that woodland loss due to development is mitigated by appropriate replanting or regeneration efforts, but it specifically applies to areas where tree removal is necessary for the Proposed Development. See **Appendix 12.3 Compensatory Planting Management Strategy**.
- 9.1.2 Any additional felling outside the OC, such as areas cleared for windthrow 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 1.03 ha.
- 9.1.4 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

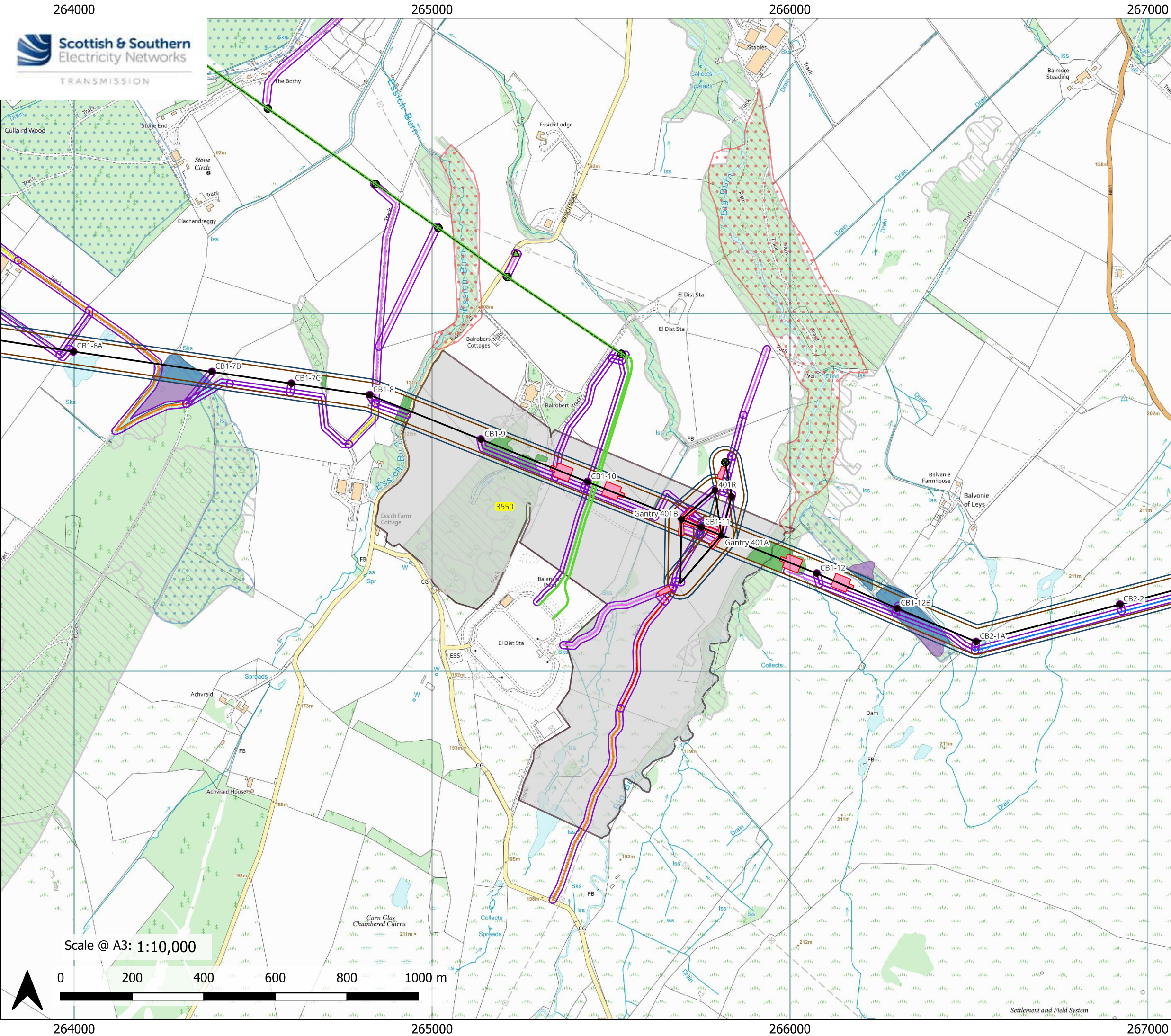


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Project:
Beaulieu to Blackhillock to New Deer to Peterhead 400 kV
OHL Project

Title: **Figure 12.1.29a** Parcel 3550 Location Map

Drawn by: LA



Legend

- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- Proposed Conductor Pulling Area (EPZ)
- Tower to be Removed
- OHL to be Removed
- 70m Operational Corridor - Broadleaved Woodland
- 90m Operational Corridor - Commercial Woodland
- Access Track 20m Buffer
- Cable to be Removed

Proposed Bellmouth

- Proposed Bellmouth - Access Only/ ATV

Proposed Access Tracks

- Existing Access – Upgrade – Good/Fair Condition
- Existing Access – Upgrade – Poor Condition
- Existing Access – Upgrade – Very Poor Condition
- Proposed Access – ATV or Temporary Trackway
- Proposed Access – Permanent
- Proposed Access – Temporary

Proposed Felling Requirements

- Native Woodland Operational Corridor Felling
- Mixed Conifer Operational Corridor Felling
- Mixed Conifer Management Felling
- Mixed Conifer Access Track Felling
- Native Woodland Survey Scotland (NWSS)

Ancient Woodland Inventory

- Ancient (of semi-natural origin)
- Long-Established (of plantation origin)
- Landownership Boundary/Parcel

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

Title: **Figure 12.1.29b** Parcel 3550 Proposed Felling Requirements

Drawn by: LA