

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

**Appendix 12.1.75 – Woodland Report Parcel 658,
Badentinan Wood, Forestry and Land Scotland**



APPENDIX 12.1.75 – Woodland Report. Parcel 658, Badentinan Wood, Forestry and Land Scotland

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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 Alignment 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 658, Badentinan Wood. 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 12.1.75a: Parcel 658 Location Map**. Badentinan wood is a commercially managed forest in the ownership of the Scottish Ministers. The woodland is situated either of the B9103 439 km west of Fochabers within the Moray council area (NJ 293044 575161).
- 2.1.2 It sits within a wider landscape of woodland and agriculture.

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

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](#)

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. 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 90 m in width is required throughout the commercial conifer woodland within Woodland Parcel 658 and taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.75b: Parcel 658 Proposed Felling Requirement.**

3.2 Access Track Route Design

- 3.2.1 The proposed tracks within this ownership are either within the OC or make use of existing forest road infrastructure

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland was surveyed in November 2024. The Badentinan woodlands in ownership of Scottish Ministers and managed by Forestry and Land Scotland impacted by the Proposed OHL Alignment consist of mainly productive conifer of varying species and age classes. With young Scots pine (SP) and mixed conifer crops surrounding mature crops in the block west of the B9103. The block east of the B9103 consists largely of mature SP.
- 4.1.2 The ownership contains a section of the Proposed OHL Alignment between towers CB12-2 and CB12-6.
- 4.1.3 The landscape character is characterized by rolling hills within a landscape of farmland and forests.
- 4.1.4 The section of Proposed OHL Alignment is mainly moderately exposed with a Detailed Aspect Method of Scoring (DAMS) score of approximately 13³.
- 4.1.5 The Ecological Site Classification⁴ describes the site as having a cool, moderately exposed and moist climate. The soils have a wet moisture status and a poor nutrient status.

³ 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.

⁴ Ecological Site Classification, Available at: <http://www.forestdss.org.uk/geoforestdss/>

- 4.1.6 The Soil Map of Scotland⁵ identifies the soils as being predominantly humus-iron podzols. Soils show signs of gleying demonstrating poor drainage and rooting
- 4.1.7 The forest plantation is currently covered under the active Land Management Plan (LMP) for Teindland⁶ which runs from 2023-2033.
- 4.1.8 A significant part of the woodland is categorised with NatureScot Ancient Woodland Inventory⁷ as Long Established of Plantation Origin (LEPO), approximately between towers CB12-3 and the edge of the property on the east. No other environmental designations apply to this parcel
- 4.1.9 The existing Beauly to Blackhillock powerline runs to the north of Badentinan woods. On the eastern side of the B9103 this line has previously cut through the woodland.
- 4.1.10 There is existing infrastructure in both the block to the east and to the west of the B9103. Access into the western block is good and requires little to no upgrade. Access in the eastern section is limited as the current infrastructure is fenced off and appears to not have been used for a long time. This access turns straight onto the B9103 and therefore adequate infrastructure is required prior to operations taking place. The closest road suitable for timber extraction within the ownership is the B9103 to the east this is classed as an Agreed Route by the Timber Transport Forum^{8,9}.
- 4.1.11 Considering the crops, quantities and location harvesting using harvester/forwarder combinations is feasible and most appropriate in the majority of the crops. The young Scots pine crop on the western edge of the property is recommended to be mulched.

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.

⁵ National Soil Map of Scotland. Available at: <https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/>

⁶ Forestry and Land Scotland (2025). Available at: [Teindland Land Management Plan | Forestry and Land Scotland](#)

⁷ NatureScot A guide to understanding the Scottish Ancient Woodland Inventory (AWI). Available at: <https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi>.

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 can be used for timber haulage without restriction other than as regulated by the Road Traffic Act 1988. "A" roads (e.g. the A9) are classified as Agreed Routes by default unless covered by one of the other categories (e.g. Consultation Route).

Photo 1: Young Scots pine crop between CB12-2 and CB12-3 and the existing access track (NJ 285455 572997, looking east)



Photo 2: Mature Scots pine with understorey of naturally regenerated non-native conifer between CB12-3 and CB12-4 (NJ 287157 573621, looking north)



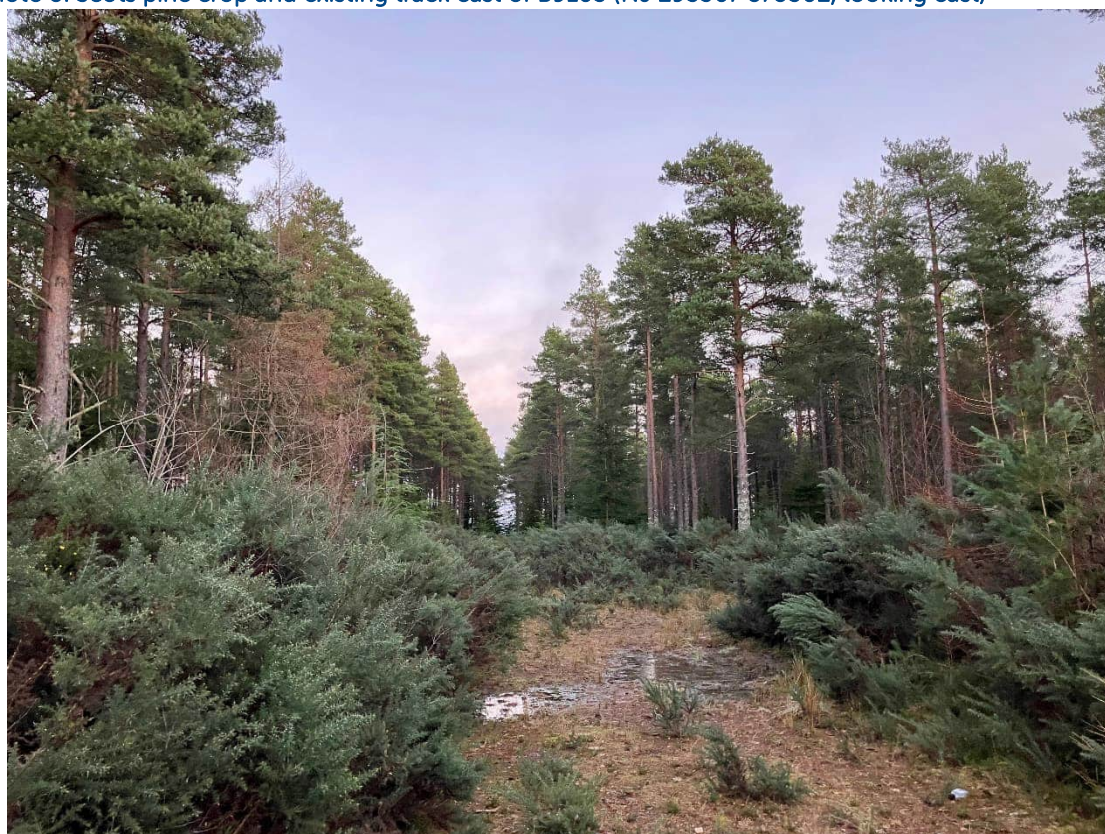
Photo 3: Young Scots pine between CB12-4 and the B9103 (NJ 290171 575023, looking east)



Photo 4: Mature mixed conifer south of CB12-3 (NJ 289605 571813, looking west)



Photo 5: Scots pine crop and existing track east of B9103 (NJ 293307 575302, looking east)



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 Forestry Chapter 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 out with 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) for the implementation of the works.
- 5.1.2 Considering the varying woodland types in this ownership wind risk needs to be assessed per area. In the younger crops west of the B9103 windblow risk is limited as the current crop height is still limited. Areas in question are at or before first-thinning age and as such only the OC will require cutting. The more mature crops consisting of mature Scots pine, lodgepole pine, Douglas fir, Western hemlock and Sitka spruce are likely at high risk of windblow. The crop has been thinned in the past put rooting is limited and signs of windblow are found throughout these crops. The northern edge of the OC coincides with a track and it is therefore hoped that the northern edge of the OC will be stable enough, therefore management felling is not recommended. The southern edge of the OC cuts through the middle of the crop and therefore management felling is recommended.
- The block east of the B9103 again consists of mature conifer but is a more homogeneous Scots pine block. Here felling of the OC will likely again destabilize the surrounding forest significantly and therefore management felling to the nearest windfirm edges is recommended.

6 Woodland Management Impact

- 6.1.1 The woodland management impact within this ownership as a result of the Proposed OHL Alignment is high.
- 6.1.2 The Proposed OHL Alignment travels through areas of forest which are currently designated as LISS. The proposed management felling will result in a change of forest management from LISS to clearfell both on the eastern and the western side of the B9103. Particularly on the eastern side of the B9103 the proposed management felling consists of a large management unit.
- 6.1.3 Access in the blocks could be severely constricted in the long term as the Proposed OHL Alignment travels directly above the existing infrastructure.
- 6.1.4 The construction of the Proposed OHL Alignment will result in additional infrastructure and in the long term will create new edges to work to. It is recommended that close liaison with the landowner takes place to discuss designated crossing points to reduce woodland management impact in the long term and mitigate the point raised above.
- 6.1.5 Considering the current age and species breakout of the block in relation to the OC and management felling it is unlikely that the Proposed OHL Alignment will lead to significant phasing constraints in the long term.
- 6.1.6 No adjacency issues will arise from the proposals.
- 6.1.7 The 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"¹⁰).
- 6.1.8 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0 ha.

¹⁰ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: <https://ukfisa.com/Safety/Safety-Guides/fisa-804>

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 To mitigate the landscape impact of the Proposed OHL Alignment a re-planting strategy for areas either side of the B9103 has been set out in the 'Landscape Replanting Proposals' in the Landscape chapter as demonstrated in **Figure 12.1.75c: Parcel 658 Proposed Planting Areas**.

7.2 Restructuring

- 7.2.1 As felling within this area is limited in size and within several different management units there is no need for restructuring. Furthermore, the block forms part of the wider Teindland Woodland to the south and the woodlands of Blackhills Estate to the west further limiting forest structure issues.

7.3 Restocking

- 7.3.1 In case management felling takes place there will be a restock obligation on the landowner.
- 7.3.2 As set out in the Landscape chapter under the 'Landscape Replanting Proposals' restocking can potentially take place within the OC to mitigate the visual impact of the OC. Restocking within the OC will be carried out by the applicant. Detail shown in in **Figure 12.1.75c: Parcel 658 Proposed Planting Areas**.

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 CB12-2 and CB12-6. They detail the areas designated for clear felling, both within the OC and additional recommended Management Felling outside the OC to address windthrow risks and forest design considerations.

Table 8.1: Woodland removal for Infrastructure, within OC

Item	Woodland Type	Area (ha)
Operational corridor felling	Mature Conifer Plantation (90m)	9.41
Total area		9.41

Table 8.2: Compensatory Planting

	Woodland Type	Area (ha)
Compensatory Planting Area	Mature Conifer Plantation	9.41
Total area		9.41

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	9.41
Total Compensatory Planting Area	9.41
Total Net Loss of Woodland Area	0.00

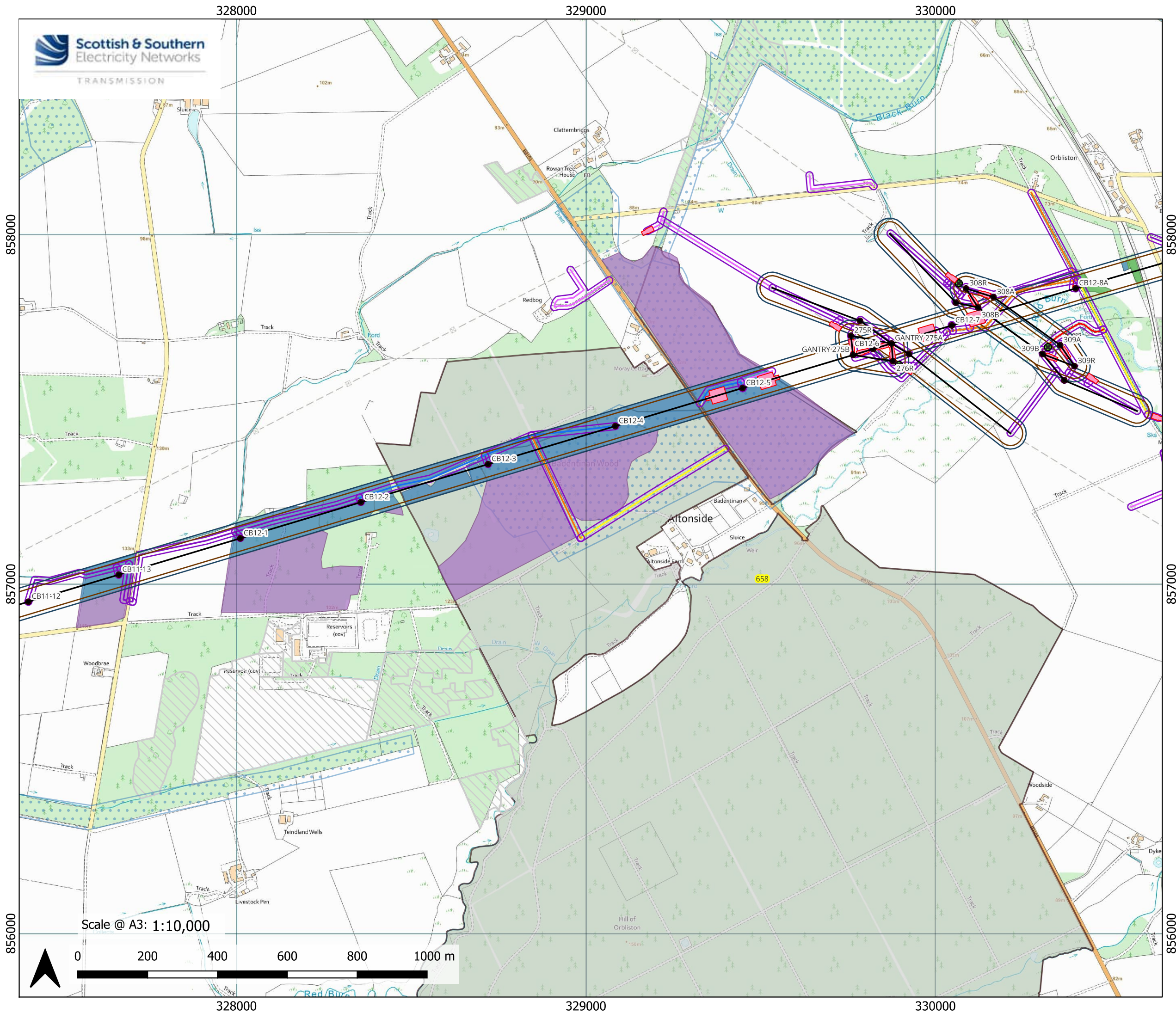
Table 8.4: Woodland removal for Management Felling, outwith OC

Item	Woodland Type	Area (ha)
Management Felling	Mature Conifer Plantation	26.54
Replanting / Restocking Opportunities	Conifer Plantation	26.54
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) ¹¹. 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 CoWRPs 9.41 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 offsite compensatory planting within the same local authority area. It is proposed that full details of the areas subject to this offsite compensatory planting is notified to Scottish Forestry prior to energising the OHL.

¹¹ 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
- Proposed Conductor Pulling Area (EPZ)
- Tower to be Removed
- 70m Operational Corridor - Broadleaved Woodland
- 90m Operational Corridor - Commercial Woodland
- Access Track 20m Buffer

Proposed Access Tracks

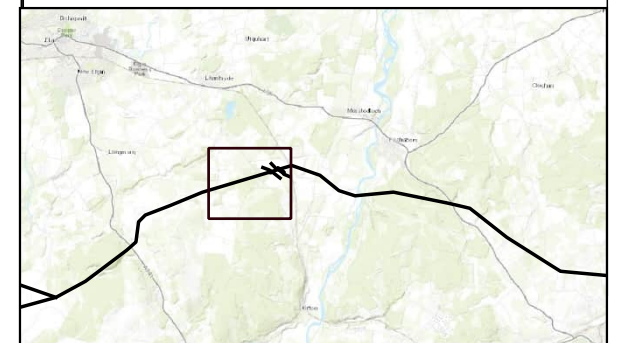
- Existing Access - Upgrade - Good/Fair Condition
- Existing Access - Upgrade - Poor Condition
- Existing Access - Upgrade - Very Poor Condition
- Proposed Access - ATV or Temporary Trackway
- Proposed Access - Permanent
- Proposed Access - Temporary

Proposed Felling Requirements

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

Ancient Woodland Inventory

- Long-Established (of plantation origin)
- Landownership Boundary/Parcel
(Landownership boundary extends beyond map extent - relevant area shown)

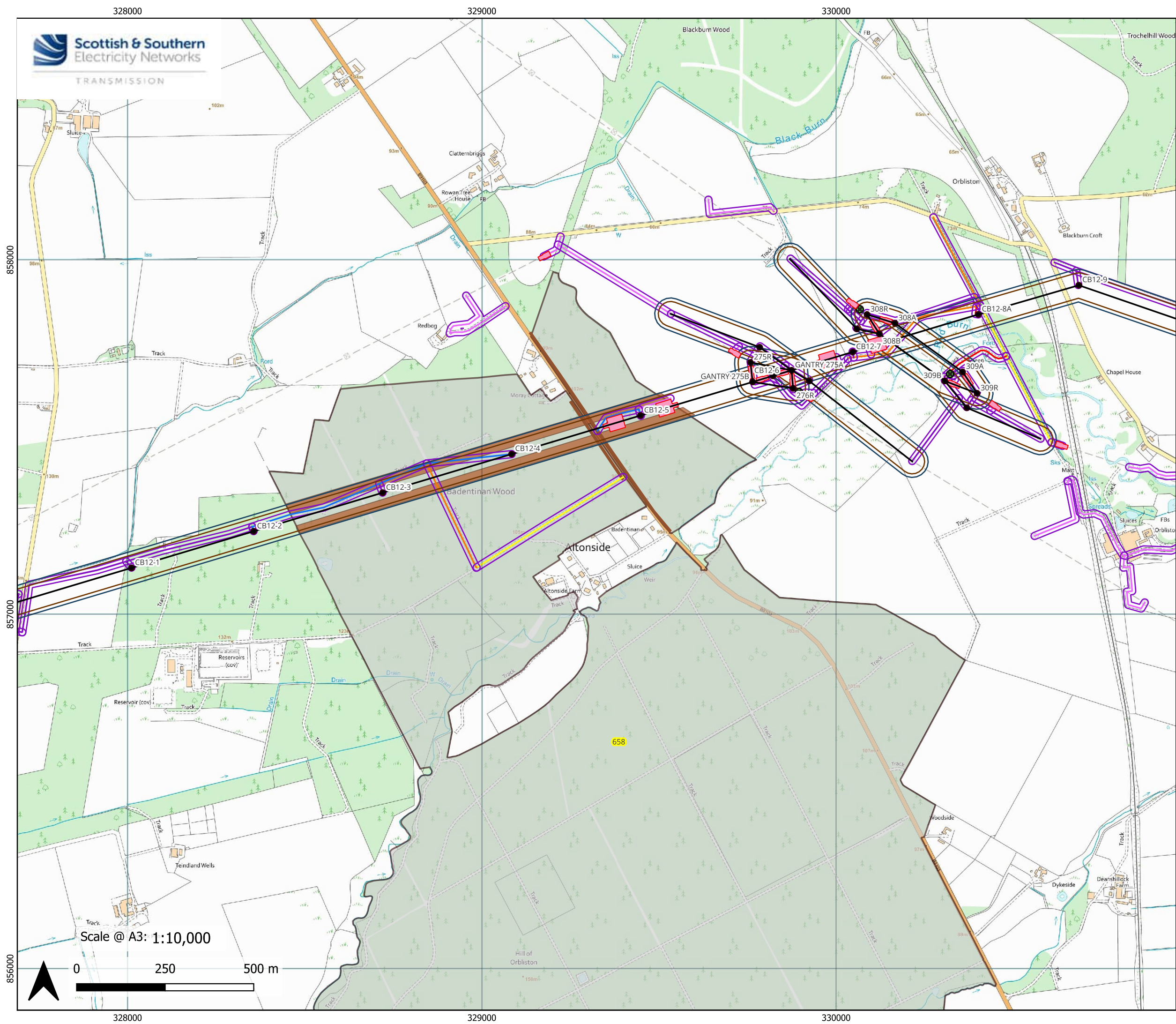


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Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV
OHL Project

Title: **Figure 12.1.75b** Parcel 658 Proposed
Felling Requirements

Drawn by: LA



Legend

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

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
- Landownership Boundary/Parcel
(Landownership boundary extends beyond map extent – relevant area shown)
- Forest Edge Planting Locations
- Roadside Mitigation Planting Locations

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

Title:
Figure 12.1.75c Parcel 658 Proposed Planting Areas

Drawn by: LA