

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

**Appendix 12.1.38 – Woodland Report Parcel
13822, Nairnside**



APPENDIX 12.1.38: Woodland Report Parcel 13822, Nairnside

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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 assesses the potential impacts of the Proposed Development on Woodland, Parcel 13822, Nairnside. 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 12.1.38a: Parcel 13822 Location Map**. The Nairnside Estate woodlands are situated 5 km southeast of Inverness within the Highland Council region (NH 739911 414922). Forming a key component of the region's rural and ecological landscape.
- 2.1.2 The woodlands within the Proposed Development area form part of the wider estate woodland holding, which consists predominantly of productive non-native conifer plantations. These woodlands have been actively managed for commercial forestry.

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

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; and

- 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 70 m in width is required throughout the broadleaved woodland and 90 m within the commercial woodlands within Woodland Parcel 13822 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.38b: Parcel 13822 Proposed Felling Requirement**.

3.2 Access Track Route Design

3.2.1 Temporary access tracks will be created within the OC and across open ground out with the OC.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

4.1.1 The woodlands were surveyed in August 2024. The estate woodlands are managed under a Long-Term Forest Plan (LTFP), Case no.4424452. The OC will traverse various woodland types, ranging from restock sites, young commercial plantations to semi-mature native woodlands.

4.1.2 Between towers CB2-21A and CB2-22 a section of native woodland recorded within the NatureScot Ancient Woodland Inventory (AWI) as 1a Ancient Woodland. The woodland sits on a steep slope leading down to the River Nairn, species present include Downy birch (DBI), willow (WL), rowan (ROW) and Common alder (CAR).

4.1.3 At tower CB2-23, the Proposed OHL cuts through a plantation of Sitka spruce (SS), Scots pine (SP) and larch (L), this was planted in 2014.

4.1.4 At tower CB2-24, the OHL cuts through a section of native woodland of DBI and WL.

4.1.5 Between towers CB2-24 and CB3-3, the OC impacts a semi-mature plantation of SS, SP and L. the woodlands are approximately 15 years old.

4.1.6 At tower CB3-3, The OC crosses a semi-mature plantation of SP and SS, which has already undergone thinning. However, the SS component is of poor quality, exhibiting signs of growth check (stunted development, likely due to soil conditions or exposure). The stand edges show evidence of windblow, requiring additional management felling to reinforce stability. Windfirm boundaries should be established to prevent further degradation.

4.1.7 Between towers CB3-4 and CB3-5, the site has been recently restocked with a commercial mix of SP, SS and L.

- 4.1.8 Towers CB3-6 to CB3-7. This area contains a semi-mature plantation of SP, which has undergone thinning in certain sections but has suffered from windblow along the northwest boundary. The windblow-prone areas indicate structural instability, requiring further management felling to create a stable windfirm edge.
- 4.1.9 Between towers CB3-8 to CB3-15, 20+year old SP will be impacted by the OC and proposed new access tracks. These woodlands were planted under an historic Woodland Grant Scheme (WGS) in 2005.
- 4.1.10 The area is moderately exposed with a maximum Detailed Aspect Method of Scoring (DAMS) score of 15³, indicating a heightened risk of windthrow in felled or partially thinned stands.
- 4.1.11 The National Soil Map of Scotland⁴ indicates the dominant soil type within the site are podzols, which are typically well-drained, nutrient-poor, and acidic.
- 4.1.12 The Ecological Site Classification (ESC)⁵ identifies the site as having a cool, moderately exposed and wet climate. The soils have a fresh moisture status and a very poor nutrient status.
- 4.1.13 The woodlands appear in the Native Woodland Survey of Scotland⁶.
- 4.1.14 The proposed section of OHL consists of a section of OC between towers CB2-22 and CB3-15.
- 4.1.15 The closest forest road suitable for haulage within the ownership is the C1056, Craggy to Dalroy road. This is classed as a Consultation Route⁷ by the Timber Transport Forum⁸. The existing internal forest roads and estate infrastructure can be utilised for timber extraction, minimising additional construction requirements. Considering the quality and quantity of the material and the landform operations can be carried out by harvester / forwarder within the more mature crop and mulcher in the younger crops.

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.

³ 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.

⁴ 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/>

⁵ Forest Research (n.d.). Ecological Site Classification (Tree Species). Available at: <http://www.forestdss.org.uk/geoforestdss/>

⁶ 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>

⁷ Consultation Routes are recognised as being key to timber extraction but are not up to Agreed Route standard. Consultation with the Local Authority is required and it may be necessary to agree limits of timing, allowable tonnage etc. before the route can be used. B roads and minor roads that are not categorised should be assumed to be Consultation Routes unless covered by one of the other classifications (e.g. Severely Restricted Route)

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/>

The Agreed Routes Maps identify the following categories of roads:

- **Agreed Routes**
Agreed Routes 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 assumed to be Agreed Routes unless covered by one of the other TTG classifications (e.g. Consultation Route)
- **Consultation Routes**
Consultation Routes are recognised as being key to timber extraction but are not up to Agreed Route standard. Consultation with the Local Authority is required and it may be necessary to agree limits of timing, allowable tonnage etc. before the route can be used. B roads and minor roads that are not categorised should be assumed to be Consultation Routes unless covered by one of the other classifications (e.g. Severely Restricted Route).
- **Severely Restricted Routes**
Severely Restricted Routes should not normally be used for timber transport in their present condition. These routes are close to being Excluded Routes and consultation with the Local Authority is required to achieve an agreed road and traffic management regime to get the timber out.
- **Excluded Routes**
Excluded Routes should not be used for timber transport in their present condition. These routes are either formally restricted, or are close to being formally restricted, in order to protect the road network from damaging loads. Consultation with the Local Authority is required to explore alternatives.
- **In-Forest Timber Haul Roads**
In some places In-Forest Timber Haul Roads contribute to the Agreed Routes, but these may have seasonal restrictions.

Photo 1: View at NH 733741 412661 looking east into the AWI native woodland towards tower CB2-22. The topography of the site means the woodland will only require selective felling to provide a clear OC.



Photo 2: View at NH 737601 412358 looking north into the young commercial plantation on the C1056 Craggy road.



Photo 3: View at NH 737321 413475 looking north east towards tower CB2-23. Showing native woodland on the lower ground and the semi mature SP/SS/L plantation between towers CB2-24 and CB3-1.



Photo 4: View at NH 745371 417779 looking southwest towards tower CB3-1. Within semi-mature SS/SP/L plantation.



Photo 5: View at NH 747014 418112 looking south towards tower CB3-3. Showing areas of wind blow damage within the semi-mature SS/SP/L plantation.



Photo 6: View at NH 754582 419029 looking south towards tower CB3-5. Showing the restock site and semi-mature SS/SP plantation at CB3-6, with wind throw damage.



Photo 7: View at NH 777612 427281 looking east towards tower CB3-12. Showing the semi-mature Scots pine plantation.



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 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)⁹ for the implementation of the works required.
- 5.1.2 There is an increased risk of windblow as a result of the proposed felling, as indicated by the DAMS score and the topography of the site.
- 5.1.3 In areas where the trees are smaller due to age or exposure then the wind blow risk is reduced along with the requirement for additional felling to wind firm boundaries.

6 Woodland Management Impact

- 6.1.1 As a result of the felling of the OC it is expected that the forest edges along the OC will be severely destabilised and as such significant areas of management felling have been identified. The felling of the OC and the management felling will form a drastic shift in management strategy in areas affected resulting in loss of canopy and large clearfells.

⁹ 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).

- 6.1.2 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).
- 6.1.3 To balance habitat conservation with infrastructure requirements, it is proposed to crown reduce sections of native 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.
- 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 ¹⁰FISA 804 “Electricity at Work: Forestry”¹¹).
- 6.1.5 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 2.52 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 To mitigate the landscape impact on this section of the Proposed Development, a replanting has been set out in **Appendix 7.6: Forestry Landscape Mitigation Principles** as demonstrated in **Figure 12.1.38c: Parcel 13822 Proposed Planting Areas**.
- 7.1.2 Selective Crown Reduction – Focused on mature trees with high ecological value, ensuring that reduction is carried out in a manner that retains structural diversity.

Restructuring

- 7.1.3 Considering the size of the felling the proposals will have an impact on forest structure within the forest. However, the block is generally mature and extends far beyond the OC and management felling. The reestablishment of the felled areas as a result of the Proposed OHL Alignment, although large and contiguous, will lead to a different age category in the block.
- 7.1.4 The felling of the OC for the development, will create a new green edge, allowing the landowner to carry out future clear fell more safely in proximity to the new power line

7.2 Restocking

- 7.2.1 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 **Figure 12.1.38c: Parcel 13822 Proposed Planting Areas**.
- 7.2.2 Restocking will be carried out by the landowner in all areas out with the OC with suitable species to continue the commercial viability of the forest.
- 7.2.3 It is anticipated that native broadleaved regeneration is likely to occur within the OC, as a result of its proximity to existing seed sources.

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 CB2-22 and CB3-15. It details 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.

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 8.1: Woodland removal for Infrastructure, within OC.

Item	Woodland Type	Area (ha)
OC felling	Native Broadleaved Woodland (70 m)	0.37
OC felling	Conifer Woodland (90 m)	24.60
Crown Reduction	Native Woodland (70 m)	2.15
Access Track Felling	Conifer Woodland (90 m)	1.31
Total area		26.28

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Native Broadleaved Woodland	0.37
Compensatory Planting Area	Conifer Woodland	25.91
Total area		26.28

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	26.28
Total Compensatory Planting Area	26.28
Total Net Loss of Woodland Area	0.00

Table 8.4: Woodland removal for Management Felling, outwith OC.

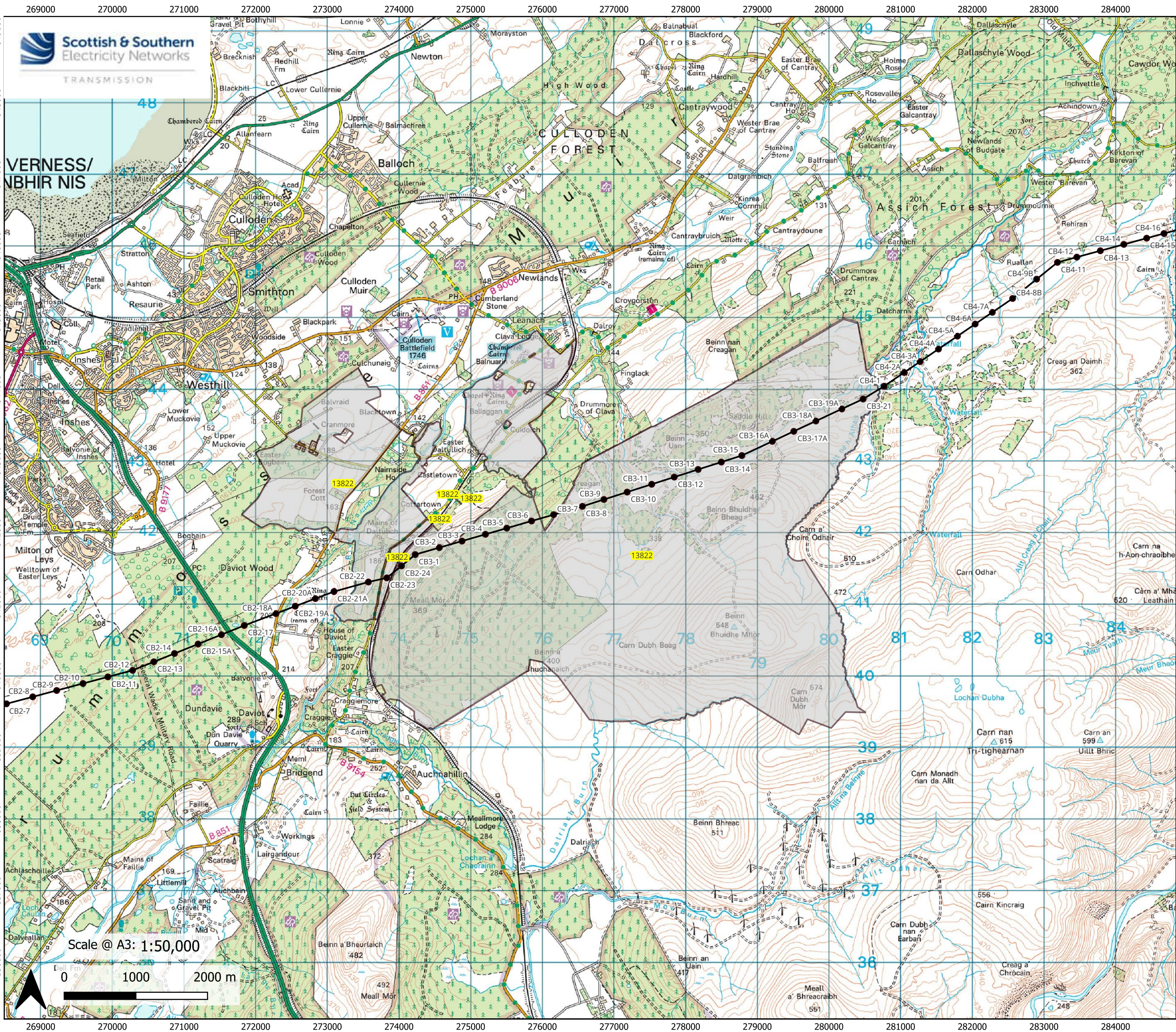
Item	Woodland Type	Area (ha)
Management Felling	Conifer Woodland	28.80
Replanting / Restocking Opportunities	Conifer Woodland	28.80
Net Loss of Woodland Area		0.00

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 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 26.28 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

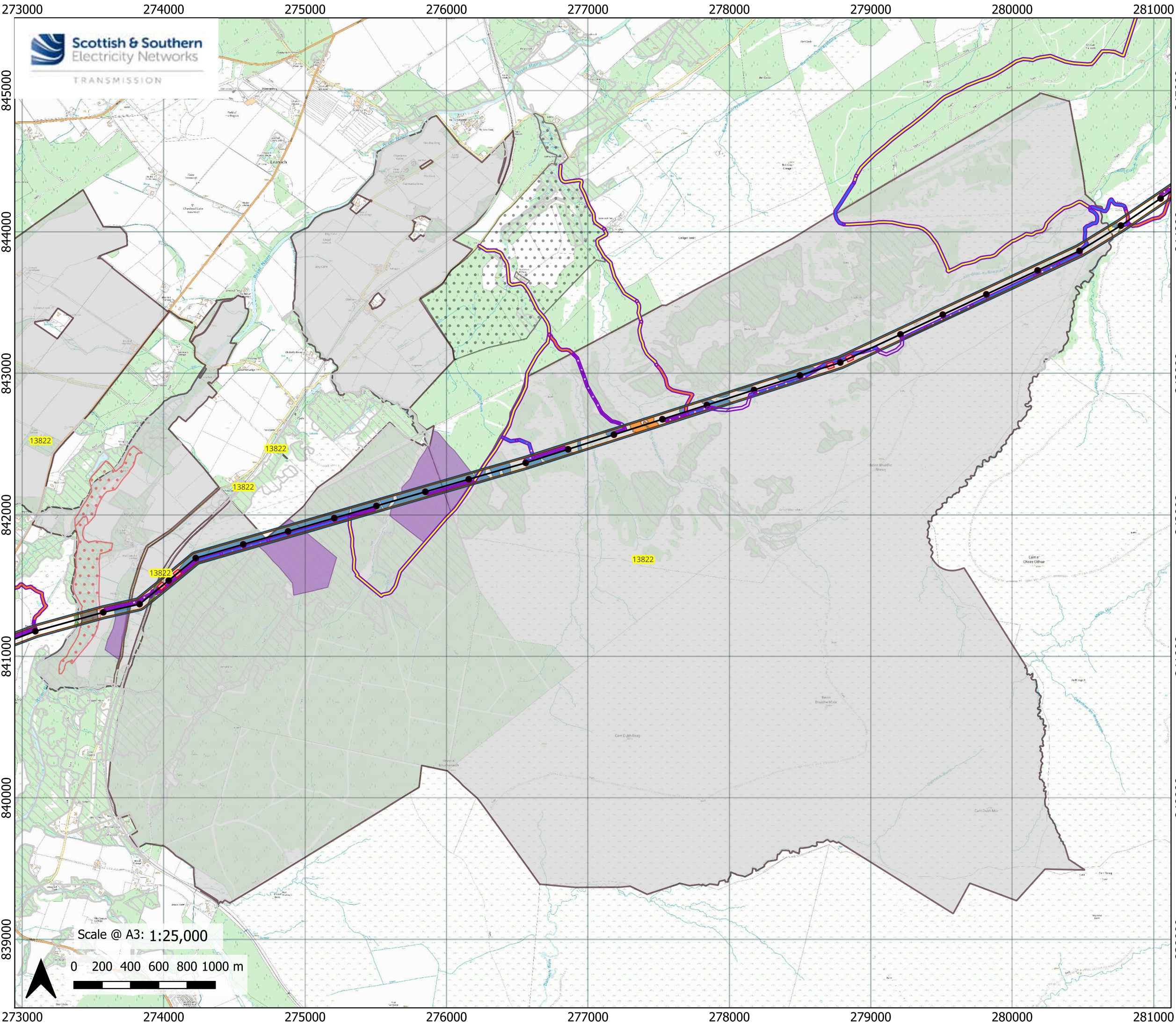
- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- ▭ Landownership Boundary/Parcel

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

Title:
Figure 12.1.38a Parcel 13822 Location Map

Drawn by: LA



Legend

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

Proposed Access Tracks

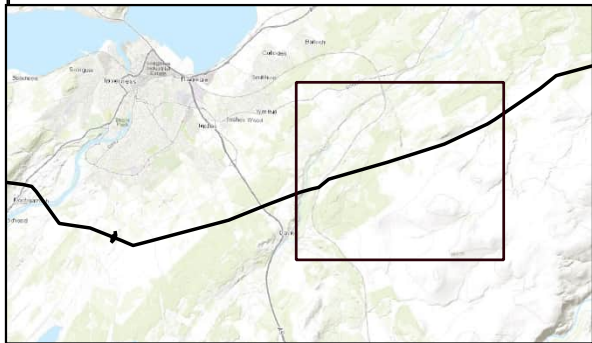
- Existing Access – Upgrade – Good/Fair Condition
- Existing Access – Upgrade – Poor Condition
- Proposed Access – Permanent
- Proposed Access – Permanent Floated
- Proposed Access – Temporary
- Proposed Access – Temporary Floated

Proposed Felling Requirements

- Native Woodland Operational Corridor Felling
- Mixed Conifer Operational Corridor Felling
- Mixed Conifer Management Felling
- Mixed Conifer Access Track Felling
- Native Woodland Crown Reduction
- Mixed Conifer Crown Reduction
- Native Woodland Selective Felling
- Site of Special Scientific Interest (SSSI)
- Native Woodland Survey Scotland (NWSS)

Ancient Woodland Inventory

- Ancient (of semi-natural 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 12.1.38b** Parcel 13822 Proposed Felling Requirements

Drawn by: LA

