

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

**Appendix 12.1.61: Woodland Report Parcel 13810,
Knockando**



APPENDIX 12.1.61: Woodland Report Parcel 13810, Knockando

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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 effects of the Proposed Development on Woodland, Parcel 13810, Knockando. 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 12.1.61a: Parcel 13810 Location Map**. The forest is in ownership of Knockando Estate and is found within a complex of forest plantations around Loch Dallas and consists mainly of productive non-native conifer. The forest is located 5.7 km southwest of Dallas in the Moray Council region (NJ 082041 488052).

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 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 13810 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.61b: Parcel 13810 Proposed Felling Requirements**

3.2 Access Track Route Design

- 3.2.1 The tracks associated with this section of the OHL are either within the OC or make use of existing forest tracks.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland was surveyed in September 2024. The Proposed OHL Alignment cuts through the southern section of the ownership and coincides with a mix of mature plantation, restocks and clear-felled areas. The mature plantation consists of mainly lodgepole pine (LP) on peaty soils and the restocks consist largely of a mix of LP and Sitka spruce (SS). The mature plantation is unthinned and unstable and is suffering from windblow in places.
- 4.1.2 Areas which have not been restocked are found in the eastern section of the proposed powerline. In this area there is a high likelihood of deep peats.
- 4.1.3 No environmental designations apply to this parcel.
- 4.1.4 The western part of the Proposed OHL Alignment in this ownership is on highly exposed ground with a maximum Detailed Aspect Method of Scoring (DAMS) score of 17^{3,4}. Further east the OHL drops into a glen prior to it crossing the Lone Burn and into the ownership of Redcraigs and Dallas. The forest here is more sheltered with DAMS score of approximately 10.
- 4.1.5 The Ecological Site Classification (ESC)⁵ identifies the site as having a cool, highly exposed and wet climate. The soils have a wet moisture status and very poor nutrient status

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

- 4.1.6 The National Soil Map of Scotland⁶ indicates, the predominant soil type within the affected areas consists of peaty gleys. Soil conditions are very wet with low nutrient availability and significant peat layers, rooting is limited.
- 4.1.7 A currently expired forest plan (4882630) covers the woodlands in the OC.
- 4.1.8 The Proposed OHL Alignment consists of a section of OC between towers CB8-4 and CB8-16. Proposed tracks in this section are found within the OC or use currently existing infrastructure.
- 4.1.9 There is good existing forest road infrastructure in the eastern part of the site. Furthermore, a recently upgraded or built forest road borders the southeastern edge of the mature plantation. The volume of material needed and the ground conditions in the forest do lead to a further requirement for forest road infrastructure prior to felling. There is currently a very limited roadside frontage along the proposed felling areas and there are several strips of open ground between the forest areas.
- 4.1.10 Considering the quality and quantity of the mature material and the landform operations can be carried out by harvester / forwarder combinations. Considering the restocks, a mix of mulching and potentially hand pulling for trees would be appropriate.
- 4.1.11 Timber will be extracted to the east, heading towards onto the unclassified U109E. This is classed as an Agreed Route by the Timber Transport Forum^{7,8}.

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

⁷ The Timber Transport Forum. Introduction to Agreed Routes Map. Available at: <https://timbertransportforum.org.uk/agreed-routes-map/introduction-to-agreed-routes-map/>

⁸ 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).

Photo 1: Restock between CB8-4 and CB8-5 (NJ 063347 487326, looking south)



Photo 2: Mature Lodgepole pine plantation between CB8-5 and CB8-6A (NJ 065821 486942, looking northeast)



Photo 3: Northern edge of crop above CB8-7A showing peaty ground conditions and signs of instability (NJ 071412 490291, looking east)



Photo 4: Instable crop edge north of CB8-9A (NJ 079601 490486, looking northeast)



Photo 5: Forest road and windblown crops at CB8-8A (NJ 077104 488199, looking north)



Photo 6: Sitka spruce restock around CB8-9A and CB10A (NJ 080051 487672, looking northeast)



Photo 7: Felled ground between CB8-11A and CB8-15 (NJ 095672 484096, looking east)



Photo 8: Restock south of mature Lodgepole pine crops (NJ 072032 484493, looking northwest)



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 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)⁹ for the implementation of the works required.
- 5.1.2 Considering the significant existing windblow along forest edges, the exposure, height of the crop and soil conditions there is a high risk of further windblow as a result of the felling of the OC.

6 Woodland Management Impact

- 6.1.1 The proposed felling will impact the forest management as it will create an adjacency issue with the young restocks around the mature plantation, although this could be resolved through delayed restocking within the proposed felling areas.
- 6.1.2 Furthermore, the OC will reduce the area available for growing productive conifer which will have a lasting impact on the woodland productivity.
- 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 will provide access into previously isolated forest areas. 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"¹⁰).
- 6.1.5 The total loss of Native Broadleaved woodland resulting from the proposed Alignment is 0.00 hectares (ha).

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 Previously forested areas on the deep peats in the east of this ownership could be deforested and restored to peatland under current guidance around management of afforested peatlands. This would reduce the need for compensatory planting.

7.2 Restructuring

- 7.2.1 As mentioned, the proposed felling will lead to an adjacency issue. The proposed felling furthermore negatively impacts forest structure as the felling coupes consist of most of the remaining mature forest.
- 7.2.2 The felling of the OC and the building of the infrastructure for the development will however create new green edges, which will allow the landowner to work to in the future if that is desired. It is unlikely that this will benefit forest structure in the short term as nearly all mature forest will need to be felled to facilitate the construction of the proposed OHL.

⁹ Scottish Forestry (2024). UK Forestry Standard (UKFS). Available at: <https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs>

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

7.3 Restocking

- 7.3.1 In case the management felling surrounding the OC takes place there will be a restock obligation on the landowner. It is recommended that peat surveys are carried out to determine whether there are opportunities for deforestation under the current guidance on managing afforested peatlands.

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 CB8-4 and CB8-16. 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.

Table 8.1: Woodland removal for Infrastructure, within OC

Item	Woodland Type	Area (ha)
Operational corridor felling	Conifer Plantation (90 m)	18.31
Total area		18.31

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Conifer plantation	18.31
Total area		18.31

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	18.31
Total Compensatory Planting Area	18.31
Total Net Loss of Woodland Area	0.0

Table 8.4: Woodland removal for Management Felling, outwith OC

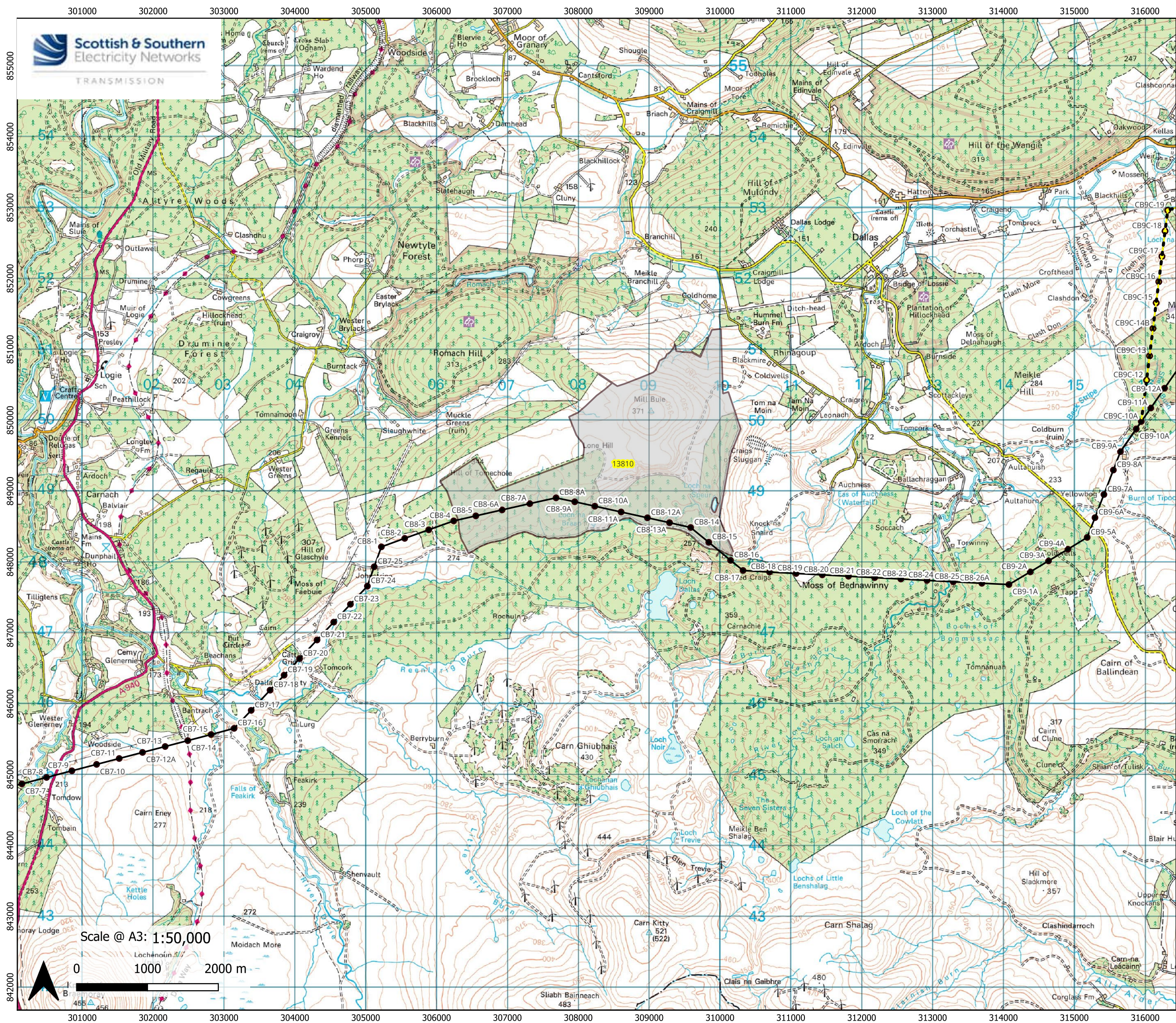
Item	Woodland Type	Area (ha)
Management Felling	Conifer plantation	60.01
Replanting / Restocking Opportunities	Conifer Plantation	60.01
Total Net Loss of Woodland Area		0.00

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)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 Strategy**.

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>

- 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 18.31 ha. This could be reduced by deforesting areas of deep peat under current guidelines regarding management of afforested deep peats.
- 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.



Legend

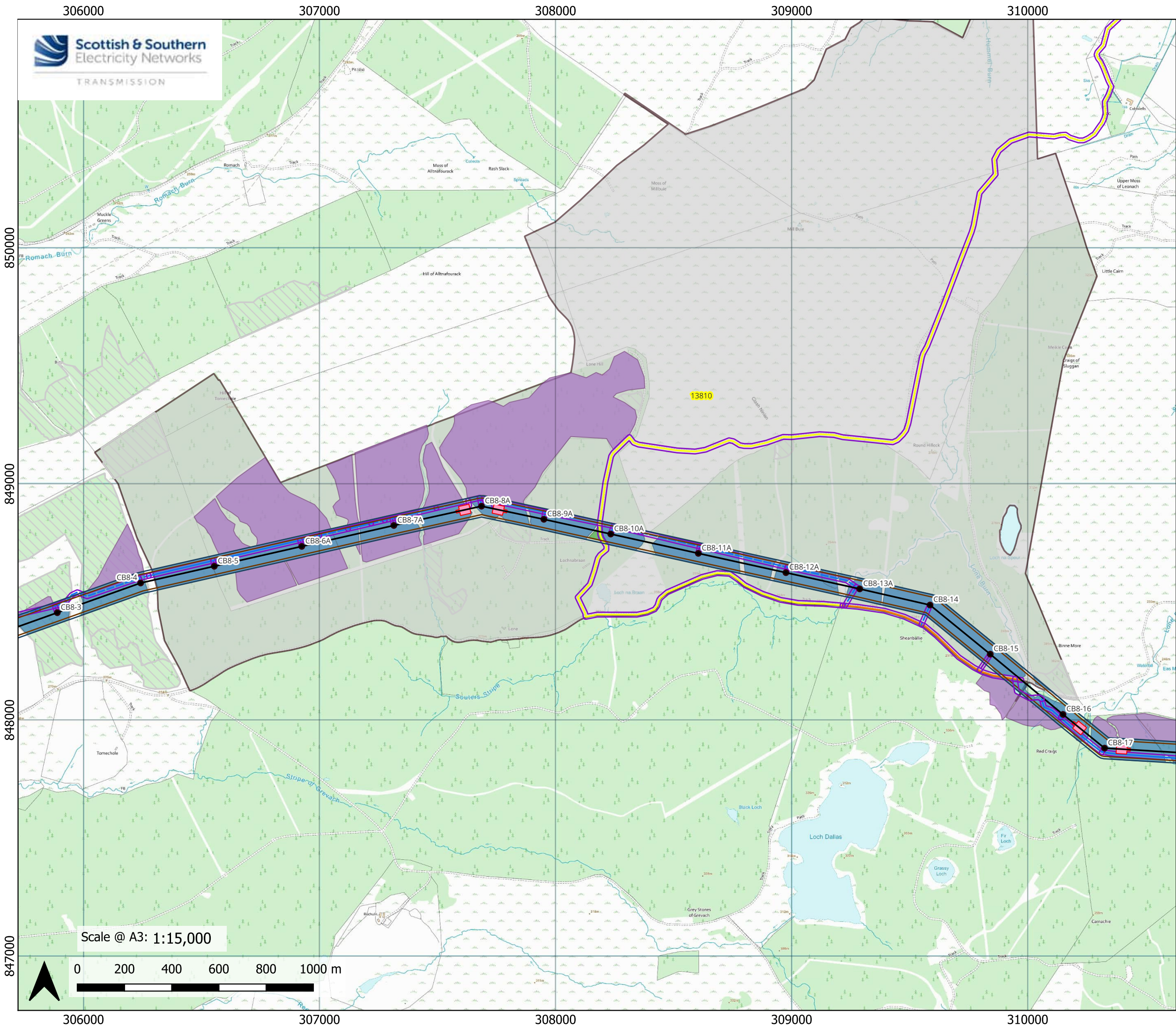
- Proposed Tower - 400 kv
- Proposed OHL Alignment - 400 kv
- Proposed Tower - Kellas Alternative Alignment
- - - Proposed OHL Alignment - Kellas Alternative
- Landownership Boundary/Parcel

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Project:
Beaulieu to Blackhilllock to New Deer to Peterhead 400 kv
OHL Project

Title:
Figure 12.1.61a Parcel 13810 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 – ATV or Temporary Trackway
- 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 Survey Scotland (NWSS)
- 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 12.1.61b** Parcel 13810 Proposed Felling Requirements

Drawn by: LA