

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

**Appendix 12.1.69: Woodland Report Parcel 804,
Kellas Estate**



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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 Parcel 804, Kellas. 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

- 2.1.1.1 The landholding property boundaries are identified in **Figure 12.1.69a: Parcel 804 Location Map**. The woodlands in this parcel are found approximately 12.87 km southwest of Elgin (NJ 166511 530293), within the Moray Council region and the woodlands are a mixture of productive and non-productive woodlands.
- 2.1.2 The woodland parcel is bounded by two main public roads: the B9010 to the north and the A941 to the east. These roads provide the primary access routes in the wider area. In addition to these, several single-track, unclassified roads branch off from the main routes and extend into the surrounding rural landscape, providing more direct access to the woodland itself.

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)¹ 2002 and The Electricity Act² 1989. 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

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](#)

mature conifer tree is 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. 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 native woodland and 90 m within the commercial woodlands within Woodland Parcel 804, taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.69b: Parcel 804 Proposed Felling Requirement**.

3.2 Access Track Route Design

3.2.1 Permanent access tracks will be created along the length of the OC to link up with existing access tracks to the east. These will be upgraded to facilitate access during operations.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

4.1.1 The proposed section of OHL discussed in this report consists of the a section of the Kellas Alternative Alignment, which starts at tower CB9C-10A and rejoins the main Proposed OHL Alignment at tower CB10-8. The Kellas Alternative Alignment enters the property from Dallas estate on the west and leaves the property at Glenlatterach Reservoir on the east. The proposed tracks within this ownership are within the OC.

4.1.2 The different woodland blocks consist of young native planting, non-native plantation, and mature native woodland.

4.1.3 The landform is dominated by the River Lossie north of the Kellas Alternative Alignment and rolling moorland to the south. Between the river and the moorland an area with steeper banks is found connecting the two landscapes.

4.1.4 The section of the Kellas Alternative Alignment is on the higher moorland and is therefore moderately exposed with a Detailed Aspect Method of Scoring (DAMS) score of approximately 133,4.

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.

- 4.1.5 The Ecological Site Classification (ESC)⁵ identifies the site as having a cool, moderately exposed and wet climate. The soils have a wet moisture status and very poor nutrient status.
- 4.1.6 The National Soil Map of Scotland⁶ indicates soil conditions throughout the ownership are varied depending on altitude and slope. On the higher ground podzols dominate, whereas the soils in the east appear more gleyed in nature. The gleying will restrict rooting depth, which will affect stability.
- 4.1.7 The woodlands do not appear in the Native Woodland Survey of Scotland⁷.
- 4.1.8 The eastern woodland block was planted as a Rural Development Contract (RDC) Woodland Creation Scheme (4656918), and recent felling has taken place in the conifer block in middle under a felling permission application FPA-11437).
- 4.1.9 No environmental designations apply for the woodland area within this parcel.
- 4.1.10 The proposed section of OHL consists of a section of OC between towers CB9C-18 and CB9C-22.
- 4.1.11 The existing Beauly to Blackhillock 275 kV OHL runs parallel and north to the Kellas Alternative Alignment. Several heritage features are found in the wider area surrounding the woodland blocks but not within the woodland blocks in this parcel and are discussed in more detail in the Cultural Heritage Chapter, paragraph 11.3.9.
- 4.1.12 There is existing infrastructure in place to the middle and eastern woodland blocks. There is no access to the westernmost block, which consists of native woodland. Recent felling and extraction have taken place in the middle block demonstrating the feasibility of timber extraction. This operation has removed the roadside frontage of the crop. The quality of tracks is average, and some maintenance will be required to allow for forest operations and development work.
- 4.1.13 Considering the crops, quantities, and location, a mix of operations is required. The recent planting in the east will need to be mulched. The area of productive non-native trees can be cut by hand or harvester / forwarder, depending on whether management felling is carried out. The native woodland in the west can be cut by hand and extracted using small machinery or felled using harvester / forwarder, however hand felling is recommended considering quantity, tree form and access.

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 corridor. 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 Forest Research. Available online at: <http://www.forestdss.org.uk/geoforestdss/>

⁶ Scottish Government (2024). Available online at: <https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/>

⁷ Scottish Forestry (2014). Available online at: <https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/native-woodland-survey-of-scotland-nwss>

Photo 1: Eastern block of native woodland planting on Kellas Estate (NJ 169781 532032, looking southeast)



Photo 2: Central block of productive conifer demonstrating recent felling, brown edge, and existing powerline (NJ 165731 530562, looking east)



Photo 3: Western block of native woodland demonstrating mature Scots pine and birch (NJ 163871 529841, 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 (windthrow). The Woodland Report identifies further areas of felling to a windfirm edge, defined as 'Management Felling' (categorised as an indirect secondary impact). This is covered in more detail in **Chapter 12: Forestry** in **Section 12.4**. 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)⁸ for the implementation of the works required.
- 5.1.2 Considering the varying woodland types in this ownership, windblow risk needs to be assessed per block. In the native mature woodland and the native woodland planting there is a minimal risk due to the open-grown nature of the mature woodland and the young age of the recent planting. In the productive conifer block, stability is likely limited due to the dense planting and tree height. However, recent felling here has cut the crop to a brown edge on the north face.

6 Woodland Management Impact

- 6.1.1 The woodland management impact within this ownership as a result of the Kellas Alternative Alignment is likely small.
- 6.1.2 The area in the west does not appear managed for a forestry purpose and therefore the felling is unlikely to impact future management.

⁸ Scottish Forestry (2024). Available online at: <https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs>

- 6.1.3 The area in the centre is managed for productive conifer and the additional Kellas Alternative Alignment will reduce the size of the management unit and reduce future access. The OC will furthermore create a brown edge resulting in proposed management felling. The crop is not far from its optimal felling age which limits the impact of the proposals.
- 6.1.4 The area in the east is young native woodland plantation and the OC is unlikely to impact the management but will reduce the size of the management unit.
- 6.1.5 The Kellas Alternative 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 (Forest Industry Safety Accord FISA 804 “Electricity at Work: Forestry”⁹).
- 6.1.6 The total loss of Native Broadleaved woodland resulting from the proposed Kellas Alternative Alignment is 1.17 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 No mitigation opportunities were found within the survey area. There is potential for compensatory planting on Kellas Estate which should be explored with the landowner.

7.2 Restructuring

- 7.2.1 As felling within this area is limited in size and within three different management units there is no requirement for restructuring.
- 7.2.2 The felling of the OC for the development will create new green edges for the landowner to work to in the future. Considering the size of the remaining management units this is of little benefit to the landowner.

7.3 Restocking

- 7.3.1 In case management felling takes place there will be a restock obligation on the landowner. Depending on timings, this can be done in conjunction with the restock of the area in between and north of the OHLs.

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 CB9C-18 and CB9C-22. 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 (Kellas Alternative Alignment)

Item	Woodland Type	Area (ha)
OC felling	Mixed conifer (90 m)	0.95
OC felling	Native broadleaves (70 m)	1.17
Access Track Felling		0.00
Total area		2.12

⁹ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: <https://ukfisa.com/Safety/Safety-Guides/fisa-804>

Table 8.2: Compensatory Planting (Kellas Alternative Alignment)

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Mixed conifer (90m)	0.95
Compensatory Planting Area	Native broadleaves (70m)	1.17
Total area		2.12

Table 8.3: Woodland Removal Impact of Infrastructure (Kellas Alternative Alignment)

Item	Area (ha)
Total Loss of Woodland Area	2.12
Total Compensatory Planting Area	2.12
Total Net Loss of Woodland Area	0.00

Table 8.4: Woodland removal for Management Felling, outwith OC (Kellas Alternative Alignment)

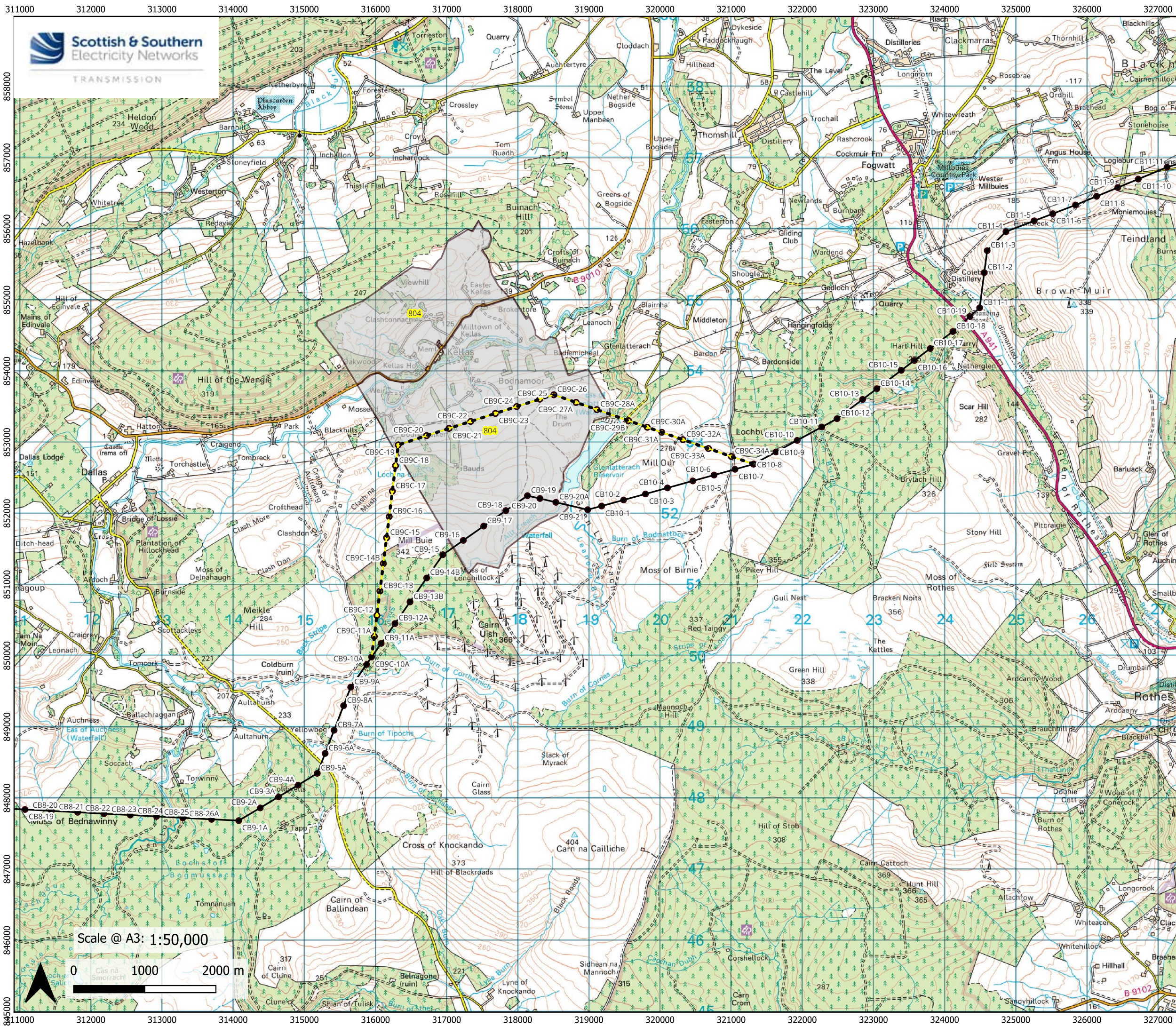
Item	Woodland Type	Area (ha)
Management Felling	Mixed conifer	1.45
Replanting / Restocking Opportunities	Mixed conifer	1.45
Net Loss of Woodland Area		0.00

9 Compensatory Planting

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)¹⁰. 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**.

- 9.1.1 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.
- 9.1.2 The total amount of net felling requiring compensation under the CoWRP is 2.12 ha.
- 9.1.3 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 local authority area.

¹⁰ 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

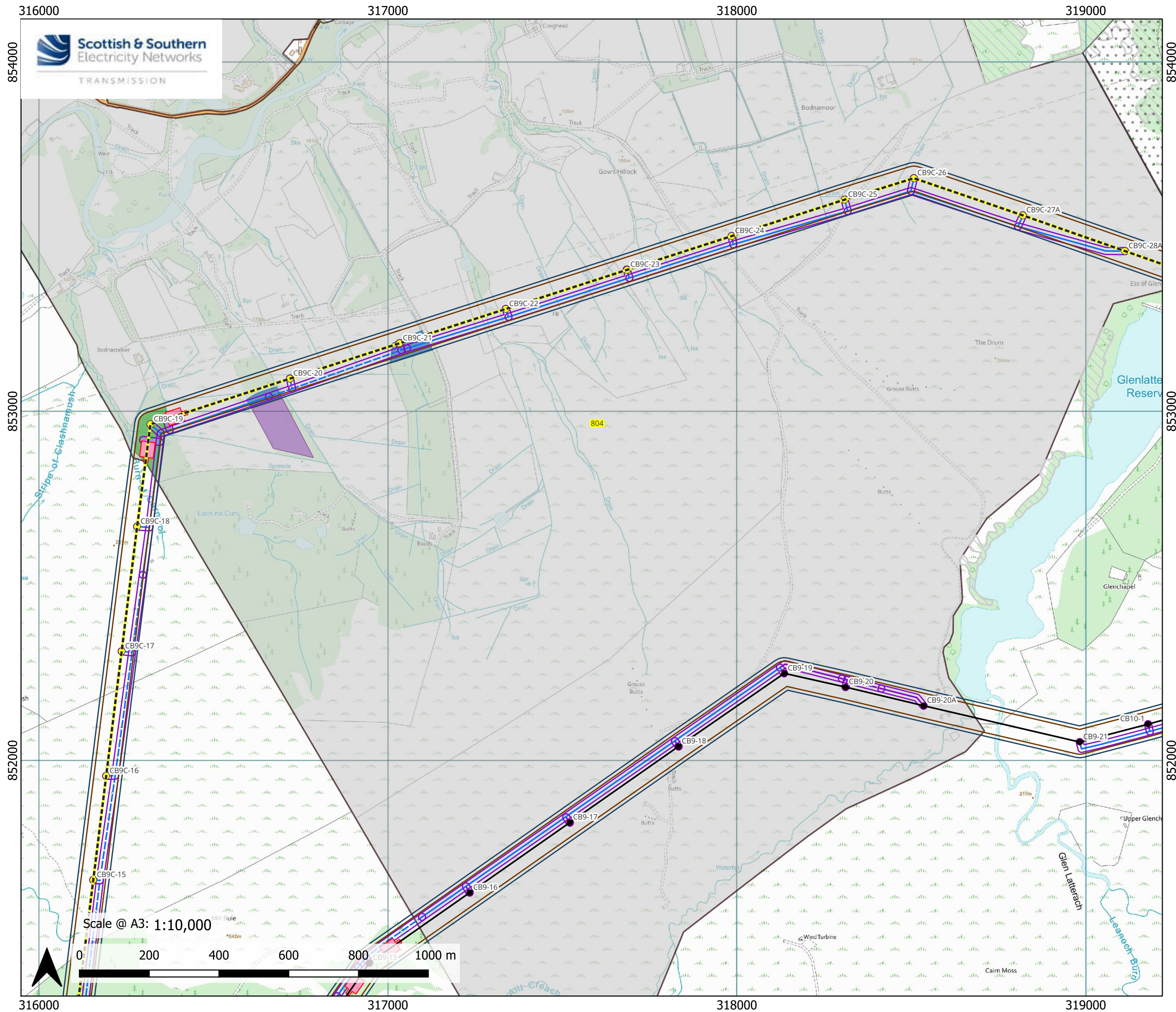
- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- Proposed Tower - Kellas Alternative Alignment
- - - Proposed OHL Alignment - Kellas Alternative
- ▭ Landownership Boundary/Parcel

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Project:
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Title:
Figure 12.1.69a Parcel 804 Location Map

Drawn by: LA



Legend

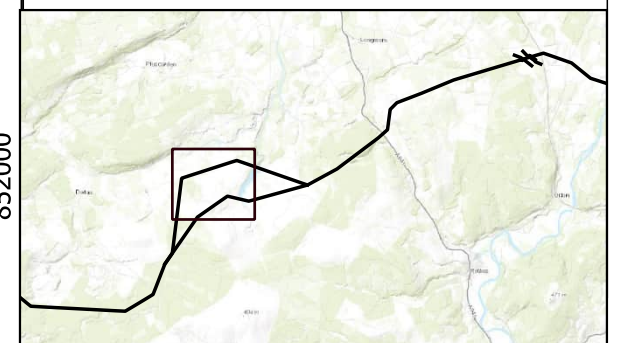
- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- Proposed Tower - Kellas Alternative Alignment
- Proposed OHL Alignment - Kellas Alternative
- Proposed Conductor Pulling Area (EPZ)
- 70m Operational Corridor - Broadleaved Woodland
- 90m Operational Corridor - Commercial Woodland
- Access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

Proposed Access Tracks

- 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
- Site of Special Scientific Interest (SSSI)
- Native Woodland Survey Scotland (NWSS)
- Landownership Boundary/Parcel



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

Title: **Figure 12.1.69b** Parcel 804 Proposed
Felling Requirements

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