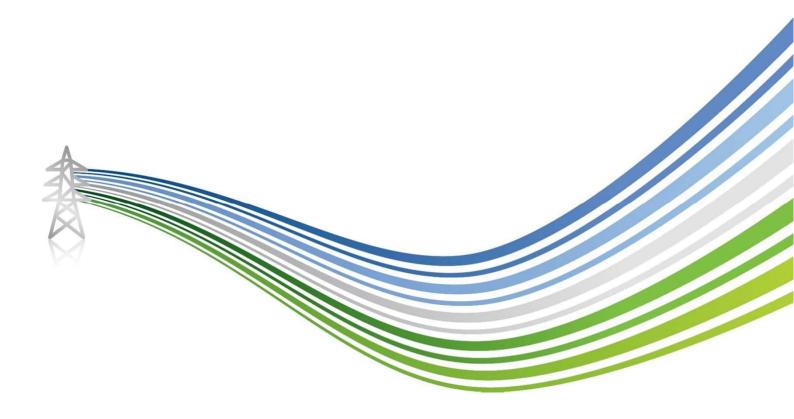


Beauly to Blackhillock to New Deer to
Peterhead 400 kV Project
Environmental Impact Assessment Report
Volume 5 | Appendices

Appendix 12.1.28: Woodland Report Parcel 254





APPENDIX 12.1.28: Woodland Report Parcel 254

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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 254. 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 12.1.28a: Parcel 254 Location Map and are located approximately 2 km south of Inverness on the C1064 Inverness- Ashie Moor Road at grid reference NH 649155 397381.

3 Development Requirements

3.1 400 kV Overhead Line Infrastructure Requirements

- 3.1.1 The Study Area for this assessment initially focussed on a 100m 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: <u>Electricity Act 1989</u>



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- 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 woodland area within Woodland Parcel 254 where native woodland is present and taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.28b**: **Parcel 254 Proposed Felling Requirement**.

3.2 Access Track Route Design

3.2.1 The proposed section of OHL consists of a section of OC between towers CB1-7B to CB1-9. The proposed access tracks in this section do not affect woodland.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland was surveyed in December 2024. The woodland between CB1-7C and CB1-8 consists of mature Silver birch (SBI) Goat Willow (WL), Ash (AH) with Hazel (HAZ), Blackthorn (BT), Rowan (ROW) and Downy birch (DBI) in the understory. Mature trees are 18 m in height.
- 4.1.2 The woodland between CB1- 8 and CB1-9 comprises riparian woodland along the Essich Burn. The canopy is dominated by mature SBI, GW, AH and Alder (CAR) and HAZ, ROW and DBI and Holly (HOL) in the understory with semi mature AH, CAR, DBI frequent. Some enhancement planting of native broadleaves has taken place, protected by tree shelters.
- 4.1.3 The Ecological Site Classification identifies the site as having a cool, sheltered and moist climate. The soils are moist moisture status and poor nutrient status.
- 4.1.4 The site is sheltered with a maximum Detailed Aspect Method of Scoring (DAMS) score of 12^{3,4}.
- 4.1.5 The Soil Map of Scotland⁵ identifies the soils as being predominantly are humus iron podsols soils.
- 4.1.6 The woodlands are not identified in the Ancient Woodland Inventory⁶ (AWI).

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

⁶ NatureScot (2023). A guide to understanding the Scottish Ancient Woodland Inventory (AWI). Available at: https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi



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- The broadleaved woodland is identified on the Native Woodland Survey of Scotland (NWSS)⁷ as 'Lowland Mixed deciduous woodland' with a mixture of age classes and 95% native species composition.
- 4.1.8 There is no record of the area being covered under a Forest Plan or Felling Permission.
- 4.1.9 There is limited existing infrastructure, but the landform allows for access to be created easily in this parcel. The burn side setting of this parcel will make timber harvesting and extraction more complex, and felling should be undertaken by hand and with small scale extraction. Timber could be extracted via temporary access tracks onto the B862 trunk road. This is classed as an Agreed Route by the Timber Transport Forum⁸.
- 4.1.10 Considering the volume, species and quality, it is recommended trees are felled by hand and extracted using small equipment.

4.2 Photo Record - Operational Corridor Assessment

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.

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

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



Photo 1: View at NH 647110 398777 between towers BC1-7C and C-B1-8 looking west. Showing varied structure and species of this area of native woodland within the OC.





Photo 2: View at NH 649170 397330 between towers BC1-8 and BC1-9 A looking south. Showing semi mature Ash and Holly and Hazel in the understory.





5 Windblow Risk

- It is acknowledged that the creation of the OC would result in wider potential indirect effects on the surrounding 5.1.1 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.
- 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 management felling is required.

6 **Woodland Management Impact**

- 6.1.1 Considering the current land use, it is expected the line will not impact the forest management of the woodland in the long term.
- 6.1.2 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).
- 6.1.3 The total loss of broadleaved woodland resulting from the proposed alignment is 0.23 ha.

7 **Mitigation Opportunities**

7.1 **Woodland Mitigation Measures**

7.1.1 Areas of hazel coppice are unlikely to grow higher than five to ten metres. Retention of hazel should be considered.

7.2 Restructuring

Considering the mixed nature of the woodland, both in species and age, there will be limited impact on forest structure.

7.3 Restocking

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**

Tables 8.1 to 8.4 outline the operational requirements for forestry management within the OC between towers 8.1.1 CB1-7B to CB1-9. They detail the areas designated for clear felling, within the OC and forest design considerations.

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



Table 8.1: Woodland removal for Infrastructure, within OC

ltem	Woodland Type	Area (ha)
OC felling	Native Broadleaved Woodland (70 m)	0.23
Total area		0.23

Table 8.2: Compensatory Planting

ltem	Woodland Type	Area (ha)
Compensatory Planting Area	Native Broadleaved Woodland	0.23
Total area		0.23

Table 8.3: Woodland Removal Impact of Infrastructure

ltem	Area (ha)
Total Loss of Woodland Area	0.23
Total Compensatory Planting Area	0.23
Total Net Loss of Woodland Area	

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)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 CoWRP's 0.23 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.

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

