

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

Appendix 12.1.115: Woodland Report Parcel 5336, Quarryhill Farm





APPENDIX 12.1.115: Woodland Report Parcel 5336, Quarryhill Farm

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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 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 5336, Quarryhill Farm. 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 12.1.115a: Parcel 5336 Location Map. The parcel consists largely of farmland with edges of native riparian woodland. The woodland is situated 3 km southeast of Turriff within the Aberdeenshire Council region (NJ 757201 484393).

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: <u>Electricity Act 1989</u>



- TRANSMISSION
 - 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.
 - The typical OC required within areas of commercial conifer forestry for a 400 kV OHL is 90 m (i.e. 45 m either 3.1.2 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 within Woodland Parcel 5336 and taking into account the requirements of the conductor blowout assessment. The OC is illustrated in Figure 12.1.115b: Parcel 5336 Proposed Felling Requirement.

3.2 Access Track Route Design

There are no proposed tracks impacting the areas of woodland within this ownership.

4 **Woodland Characteristics**

Woodland Composition and Site Conditions 4.1

- 4.1.1 The woodlands were surveyed in December 2024. The woodland located within this ownership boundary is primarily composed of native broadleaved species, which are predominantly situated along the banks of the Idoch Water The woodland is dominated by native broadleaved species, with Downy Birch (DBI), Willow (WL), and Hawthorn (HAW) identified as the principal tree and shrub species. Additionally, areas of Gorse scrub were recorded.
- The ownership contains a section of the Proposed OHL Alignment between towers BN6-4 and BN6-5.
- The section of Proposed OHL Alignment is sheltered with a Detailed Aspect Method of Scoring (DAMS) score of 4.1.3
- The Ecological Site Classification⁵ describes the site as having a warm, sheltered and moist climate. The soils 414 have a fresh moisture status and a medium nutrient status.
- 4.1.5 The Soil Map of Scotland⁶ identifies the soils as being predominantly alluvial soils.

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.

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

⁶ National Soil Map of Scotland. Available at: https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/



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 - 4.1.6 There is no access to the trees through the ownership however access could be taken across the neighbouring agricultural ground. The closest road suitable for timber extraction within the ownership is the B9170 which runs along the south, this is classed as a Consultation Route by the Timber Transport Forum^{7,8}.
 - 4.17 Considering the trees, quantities, and location, harvesting using hand felling is recommended with material left on site or extracted using small scale machinery.

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.

Photo 1: Native broadleaved riparian woodland (NJ 758941 483471, 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 the 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.
- 5.1.2 Considering the open grown nature of the trees and the landform there is limited risk of windblow.

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

Roads which are key to timber extraction but, for a variety of reasons, are not up to Agreed Route Standard. Consultation with the Local Authority is required before any timber haulage takes place and it may be necessary to limit the amount, timing or frequency of timber haulage, or to specify lower impact vehicles to prevent damage. All minor roads (B, C and unclassified roads) should be treated as Consultation Routes by default unless covered by one of the other categories (e.g. Severely Restricted Route).

⁹ Scottish Forestry (2024). Available online at: https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs

6 Woodland Management Impact

- 6.1.1 There is no woodland management impact expected from the proposed operations as the woodlands do not appear managed for commercial purposes.
- 6.1.2 No adjacency issues will arise from the proposals.
- 6.1.3 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 ¹⁰).
- 6.1.4 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0.13 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

7.1.1 No mitigation opportunities are present within the woodland parcel.

7.2 Restructuring

7.2.1 As felling within this area is restricted to OC felling there is no requirement for restructuring.

7.3 Restocking

- 7.3.1 As no management felling is recommended there will not be a restock obligation on the landowner.
- 7.3.2 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 BN6-4 and BN6-5. They detail the areas designated for clear felling within the OC and forest design considerations.

Table 8.1: Woodland removal for Infrastructure, within OC

Item	Woodland Type	Area (ha)
Operational corridor felling	Native Broadleaves (70 m)	0.13
Total area		0.13

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Native Broadleaves	0.13
Total area		0.13

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



Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	0.13
Total Compensatory Planting Area	0.13
Total Net Loss of Woodland Area	0.00

Table 8.4: Woodland removal for Management Felling, outwith OC

ltem	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 is 0.13 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



