

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

Appendix 12.1.124: Woodland Report Parcel 13282, West Crichie Woodland





APPENDIX 12.1.124: Woodland Report Parcel 13282, West Crichie Woodland

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1 Introduction

- This Appendix presents information relevant to the Beauly to Blackhillock to New Deer to Peterhead 400 kV 1.1.1 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 13282, West Crichie Woodland. 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.
- Field surveys of the woodland areas have been undertaken and have been used to determine the various 1.1.4 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

The landholding property boundaries are identified in Figure 12.1.124a: Parcel 13282 Location Map. The woodland parcel is situated approximately 8.5 km southeast of New Deer, within the Aberdeen Council region (NJ 965241 435882). The woodland is a mixed age plantation of native and non-native broadleaved species.

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.

¹UK 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>



- 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 proposed 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 within the native woodland within Woodland Parcel 13282 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in Figure 12.1.124b: Parcel 13282 Proposed Felling Requirement.

3.2 Access Track Route Design

Temporary access tracks will be created across open fields to access towers NP3-9 to NP3-10.

4 **Woodland Characteristics**

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland was surveyed in December 2024. The woodland is split over 3 sections:
 - At towers NP3-9 to NP3-11 Native broadleaved woodland established in 2019, featuring a mixture of species including sessile oak (SOK), downy birch (DBI), rowan (ROW), and willow (WL).
 - Roadside trees The roadside belt consists predominantly of mature broadleaf trees, primarily comprising species such as Common alder (CAR), beech (BCH) and ash (AH).
 - Pond area toward tower NP9-3C was established in 2005 and is surrounded by semi-mature trees averaging 12-15 m in height. Species include DBI, AH, sycamore (SYC), CAR, SOK, and holly (ILX), with notable natural regeneration near the pond margins.
- 4.1.2 The area is moderately exposed with a maximum Detailed Aspect Method of Scoring (DAMS) score of 12³⁴.
- The National Soil Map of Scotland⁵ indicates identifies the site as being predominantly brown earths, with parent material of drifts derived from intermediate rocks or mixed acid and basic rocks, both metamorphic and igneous.
- The Ecological Site Classification (ESC)⁶ identifies the site as having a cool, moderately exposed and moist 4.1.4 climate. The soils have a fresh moisture status and a medium 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.

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

⁶ Forest Research Decision Support Tools. Ecological Site Classification. Available at: http://www.forestdss.org.uk/geoforestdss/

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 - 4.1.5 The woodlands are identified in the Native Woodland Survey of Scotland (NWSS)⁷ as Native.
 - 4.1.6 The proposed section of OHL consists of a section of OC between towers NP3-9C to NP3-11.
 - 4.1.7 The closest public road suitable for haulage of timber within the ownership is the unclassified road running through the woodland to the B9030 road to the west. This is classified as a Consultation Route by the Timber Transport Forum^{8,9}. Considering the quality and quantity of the material and the landform operations can be carried out by harvester / forwarder combinations. An element of hand felling is likely required for the mature trees amongst the crop and along the roadside. Existing estate infrastructure can be utilised for this extraction.
 - 4.18 Liaison with the local road authority will be key to facilitate the felling operations along the roadside as trees are within striking distance of the road.

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: View at NJ 966761 435766 looking east into the native woodland planting toward tower NP3-11. Mixed young native broadleaves (species recorded ROW, DBI, SOK and WL) form a narrow fringe adjacent to the OC. To maintain statutory safety clearances and avoid future vegetation encroachment, all trees within the mapped OC will require felling.



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

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

⁹ 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)



Photo 2: View at NJ 965400 435931 looking east along the roadside trees toward Tower NP3-10, showing mature and semi-mature BCH and AH on the steep north facing slope leading down to the road.





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Photo 3: View at NJ 963051 435882 looking north. The creation of the OC will necessitate the complete felling of the DBI to the west of the pond and several mature BCH trees along the roadside.



5 Windblow Risk

- 5.1.1 It is acknowledged that the creation of the access track 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 **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 access track 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 UKFS¹⁰ for the implementation of the works required.
- **5.1.2** There is minimal risk of windblow as a result of the proposed felling, as indicated by the species present, the age of the crop and the topography of the site.

6 Woodland Management Impact

6.1.1 While tree felling within the OC will result in a slight reduction in the total area of woodland, this loss is marginal and should not significantly affect overall forest management, or access at a larger scale.

¹⁰ Scottish Forestry (2024). UK Forestry Standard (UKFS). Available at: https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs

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 - 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 (Forest Industry Safety Accord, FISA 804 "Electricity at Work: Forestry"11).
 - 6.1.3 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 1.86 ha.

7 Mitigation Opportunities

7.1 Restructuring

7.1.1 As the proposed operations will remove a wide range of age classes within the ownership, the woodland structure will be negatively impacted.

7.2 Restocking

7.2.1 Given the loss trees from the wider landscape setting, opportunities to strengthen the wider tree network by planting existing gaps and / or extending the network in the locality should be discussed with the landowner.

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 NP3-9C to NP3-11. 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)
OC Felling	Native Broadleaves (70 m)	1.86
Total area		

Table 8.2: Compensatory Planting

ltem	Woodland Type	Area (ha)
Compensatory Planting Area	Native Broadleaves	1.86
Total area		1.86

Table 8.3: Woodland Removal Impact of Infrastructure

ltem	Area (ha)
Total Loss of Woodland Area	1.86
Total Compensatory Planting Area	1.86
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

¹¹ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: https://ukfisa.com/Safety/Safety-Guides/fisa-804



9 Compensatory Planting

- 9.1.1 Only areas directly impacted by the OC and access tracks 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 Management Strategy**.
- 9.1.2 Any additional felling outside the OC and access tracks, 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 1.86 ha.
- 9.1.4 In order to provide greater balance, limiting long-term impacts on woodland 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.

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 $^{{}^{12}} Forestry Commission Scotland (2009). Control of Woodland Removal Policy. Available at: \\ \underline{https://www.forestry.gov.scot/publications/285-the-scottish-governments-policy-on-control-of-woodland-removal/viewdocument/285}$



