

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

Appendix 12.1.99: Woodland Report Parcel 2596, Longmoor Wood





APPENDIX 12.1.99 - Woodland Report. Parcel 2596 - Longmoor Wood

| 1 | Intro | oduction | 2 |
|---|--------------------------|--|---|
| 2 | | odland Property | |
| 3 | Development Requirements | | |
| 4 | 3.1 3.2 | 400 kV Overhead Line Infrastructure Requirements | 2 |
| | 4.2 | Woodland Composition and Site Conditions | 4 |
| 5 | Wind | dblow Risk | 5 |
| 6 | Woo | odland Management Impact | 6 |
| 7 | Mitig | gation Opportunities | 6 |
| | 7.1 | Woodland Mitigation Measures | 6 |
| | 7.2 | Restructuring | 6 |
| | 7.3 | Restocking | 6 |
| 8 | Net | Effect / Summary | 6 |
| 9 | | | |

Appendix Figures

Figure 12.1.99a: Parcel 2596 Location Map

Figure 12.1.99b: Parcel 2596 Proposed Felling Requirements



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 assesses the potential effects of the Proposed Development on Woodland ,Parcel 2596, Longmoor Wood. 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 in order 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 12.1.99a: Parcel 2596 Location Map. Longmoor wood is a small forest plantation situated 6 km northeast from Huntly in the Aberdeenshire Council region (NJ 559591 435552). The Operational Corridor (OC) travels through three separate ownerships in the forest plantation with this parcel being the smallest and furthest east parcel. The forest is surrounded by agriculture.

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 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 90 m in width is required throughout the commercial conifer woodland within Woodland Parcel 2596, taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.99b**: Parcel 2596 Proposed Felling Requirement.

3.2 Access Track Route Design

3.2.1 The proposed access tracks in this section are located within the OC.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 Woodland parcel 2596 was surveyed in November 2024. The woodland in and around the OC consists of mature Scots pine (SP) with some broadleaves in the understorey and along the edges mainly consisting of downy birch (DBI).
- 4.1.2 The forest area sits within a farmed and wooded river valley and is entirely surrounded by agricultural land. Some houses are found on the edges of the forest plantation. The parcel discussed in this report has broadleaved woodland to its north and east, houses to the south and farmland to the west.
- 4.1.3 The forest plantation is on the top end of sheltered sites. With a sheltered Detailed Aspect Method of Scoring (DAMS) of 12³.
- 4.1.4 The National Soil Map of Scotland⁴ indicates the dominant soil types within the site are humus-iron podzol soils.
- 4.1.5 The Ecological Site Classification (ESC) identifies the site as having a cool, sheltered, and moist climate. The soils have a slightly dry moisture status and very poor nutrient status.
- 4.16 No environmental designations apply to this forest area.
- 4.17 The proposed section of OHL consists of a section of OC between towers BN2-15 and BN2-16. No tracks are proposed in this ownership.

³ Forest Research (2025). Available at: http://www.forestdss.org.uk/geoforestdss/

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



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- There is no forest road infrastructure in the forest. Access will need to be taken across the adjacent ownership (Parcel 2152). The closest forest road suitable for haulage within the ownership is the unclassified road to the west which leads to the A97. This is classed as a Consultation Route by the Timber Transport Forum⁵⁶.
- 4.1.9 Considering the quality and quantity of the material and the landform, operations can be carried out by harvester / forwarder combinations.

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.

Photo 1: Mature Scots pine behind Downy birch, Scots pine on the parcel associated with this report (NJ 560609 435324, looking southwest from parcel 2152)



⁵ The Timber Transport Forum. Introduction to Agreed Routes Map. Available at: https://timbertransportforum.org.uk/agreed-routes-map/introduction-to-agreed-

routes-map/.

6 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 the route can be used. B roads and minor roads that are not categorised should be 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).



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Photo 2: Mature Scots pine behind Downy birch, Scots pine on the parcel associated with this report (NJ 560981 434419, looking west from parcel 2152)



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). This is covered in more detail in the Forestry Chapter in **Section 12.4**. 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 Standards (UKFS)⁷ for the implementation of the works required.
- 5.1.2 Considering the age and exposure of the Scots pine the crop appears stable. The felling will result in increased exposure of the crop where edge trees are taken away but, if felling is kept to a minimum, it is unlikely that the risk of windblow will increase significantly as a result of the OC felling.

 $^{^{7} \} Scottish \ Forestry \ (2024). \ Available \ on line \ at: \underline{https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs} \ (accessed \ 01/05/2025)$



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6 **Woodland Management Impact**

- 6.1.1 The impact on woodland management from a commercial perspective within this forest block is likely to be low. The parcel is very small (0.15 ha) and as such it is unlikely that the forest area is managed economically. Furthermore, as the Scots pine is overmature, felling is overdue. However, considering the parcel size and the current crop it is likely the forest is not managed commercially, and it is therefore difficult to assess the impact on woodland management from the perspective of the forest owner.
- 6.1.2 The infrastructure built for this section of the OHL could provide a benefit to the landowner for future forest management as it could provide long term access into the forest which is currently inaccessible. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner and the adjacent landowner (Parcel 2152).
- 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 which will avoid the incidences of "Red Zone" trees (reference Forest Industry Safety Accord, 8FISA 804 "Electricity at Work: Forestry").
- 6.1.4 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0.0 ha.

7 **Mitigation Opportunities**

Woodland Mitigation Measures 7.1

7.1.1 No opportunities for mitigation have been identified within this ownership.

7.2 Restructuring

- Considering a small area of mature pine is removed within the OC, and the adjacent Scots pine is recommended to be retained, there is no need for restructuring within the parcel.
- 7.2.2 Within the wider forest areas of mature and semi-mature crop will be retained and, as such, forest structure will be retained.
- 7.2.3 The felling of the OC for the development will create a new green edge. For this parcel this does not benefit forest structure as the OC does not split the forest and only reduces the management unit.

7.3 Restocking

If management felling takes place this would impose a restock obligation on the landowner

8 **Net Effect / Summary**

Tables 8.1 to 8.4 outline the operational requirements for forestry management within the OC between towers BN2-15 and BN2-16 within this parcel. 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.

⁸ 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 | Mature Conifer Plantation (90m) | 0.15 |
| Total area | | 0.15 |

Table 8.2: Compensatory Planting

| Item | Woodland Type | Area (ha) |
|----------------------------|--------------------|-----------|
| Compensatory Planting Area | Conifer Plantation | 0.15 |
| Total area | | 0.15 |

Table 8.3: Woodland Removal Impact of Infrastructure

| Item | Area (ha) |
|----------------------------------|-----------|
| Total Loss of Woodland Area | 0.15 |
| Total Compensatory Planting Area | 0.15 |
| Total Net Loss of Woodland Area | |

Table 8.4: Woodland removal for Management Felling, outwith OC.

| ltem | Woodland Type | Area (ha) |
|--|--------------------|-----------|
| Management Felling | Conifer Plantation | 0.03 |
| Replanting / Restocking Opportunities | Conifer Plantation | 0.03 |
| Net Loss of Woodland Area | | 0.0 |

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)⁹. 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 0.15 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.

⁹ 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



