

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

Appendix 12.1.63: Woodland Report Parcel 3238, Dallas





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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 3238, Dallas. 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**

2.1.1 The landholding property boundaries are identified in Figure 12.1.63a: Parcel 3238 Location Map. The woodlands in ownership of Dallas Estate in the Moray council area approximately 4.2 km south of Dallas (NJ 103922 478685). The forest is within a complex of forest areas around Loch Dallas and consists mainly of productive non-native conifer.

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

¹ UK Gov (2002). The Electricity Safety, Quality and Continuity Regulations 2002. Available at: <u>The Electricity Safety, Quality and Continuity Regulations 2002</u> 2 UK Gov (1989). Electricity Act 1989. Available at: <u>Electricity Act 1989</u>



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 90 m in width is required throughout the commercial conifer woodland within Woodland Parcel 3238 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.63b**: Parcel 3238 Proposed Felling Requirement.

3.2 Access Track Route Design

3.2.1 Temporary access tracks will be created within the OC.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.11 The woodland was surveyed in September 2024. The woodland in and around the OC consists of plantation forest of mainly Sitka spruce (SS) and Lodgepole pine (LP) with other species such as Larch (LA) and Scots pine (SP) found further south of the OC. Flat areas north of the OC likely coincide with deep peats and show extremely restricted growth. Slopes in and south of the OC have grown better but significant windblow is found here.
- 4.1.2 The section of Proposed OHL Alignment is sheltered by high ground to the south and crosses the Lone Burn at its western end. The land to the northeast of the parcel is flat and as such the northeastern edge of the forest is exposed.
- 4.1.3 No environmental designations apply to this ownership.
- 4.1.4 The landscape is characterized by the upland moorland and forestry of Moray.
- 4.15 The section of Proposed OHL Alignment is sheltered, with a Detailed Aspect Method of Scoring (DAMS) score of 10^{3,4}.
- 4.1.6 The Ecological Site Classification (ESC)⁵ identifies the site as having a cool, sheltered and wet climate. The soils have a slightly dry moisture status and very poor 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.

⁵ Forest Research Decision Support Tools. Ecological Site Classification. Available at: http://www.forestdss.org.uk/geoforestdss/



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 - The National Soil Map of Scotland⁶ indicates, the predominant soil type within the affected areas consists of blanket peats. Soil conditions are very wet with low nutrient availability and significant peat layers, rooting is limited.
 - 4.18 An existing felling approval (4724670) covers part of the forest plantation in the OC and all the forest south of the OC in the ownership.
 - 4.1.9 The Proposed OHL Alignment consists of a section of OC between towers CB8-16 and CB8-19. Proposed tracks in this section are found within the OC.
 - 4.1.10 There is no existing forest road infrastructure near the OC within the ownership. The closest forest road suitable for haulage within the ownership is found approximately 1 km south of the OC. Northwest of the ownership, on parcel 13810, an existing forest road is found which has recently been used for operations. Any access to this parcel would cross parcel 472 which includes crossing the Lone Burn. The Lone Burn will form a constraint to forest management and access in this section. Timber could be extracted into the existing infrastructure but there is a risk of pollution of the Lone Burn and any work will need to be carefully planned to prevent incidents. Considering the likely felling necessary on the adjacent ownership to the west (Parcel 472), works can potentially be combined.
 - 4.1.11 Considering the quality and quantity of the material and the landform operations can be carried out by harvester / forwarder combinations.
 - 4.1.12 Timber will be extracted to the east, heading towards onto the unclassified U109E. This is classed as an Agreed Route by the Timber Transport Forum^{7,8}.

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.

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

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

8 Agreed Routes can be used for timber haulage without restriction (other than as regulated by the Road Traffic Act 1988). "A" roads (e.g. the A9) are assumed to be

Agreed Routes unless covered by one of the other TTG classifications (e.g. Consultation Route)



Photo 1: View from CB8-19 towards CB8-18 demonstrating poor growing conditions and short crop on potential deep peat (NJ 110612 478328, looking west)



Photo 2: View from northern edge looking south demonstrating difference in growth between flat ground north of OC and plantation further south (NJ 109054 479237, looking southwest)





Photo 3: Windblow around CB8-18 (NJ 108114 478556, looking south)



Photo 4: Mature, wind damaged crops at CB8-18 (NJ 107784 478691, looking west)





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Photo 5: Potential windfirm edges near CB8-17 (NJ 105021 478271, 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 **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
- 5.1.2 Considering the significant existing windblow in and near the OC and the exposure there is a high risk of further windblow as a result of the felling of the OC.

6 Woodland Management Impact

6.1.1 As there is an approved felling permission in place for part of the OC and for the forest area to south of the OC the expected impact on the forest management is limited. It is recommended that any areas out with the currently approved felling permission in, and north of, the OC are felled simultaneously with the approved felling. This would also allow for extraction to the south rather than across adjacent ownership and the Lone Burn.

⁹ 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 As the OC cuts through the far northern section of the forest area the long-term impact on forest management is expected to be minor. Peat surveys will need to determine to what extent areas north of the OC can be restocked. If restock is to take place north of the OC this area will not constitute a viable management unit but with productivity as low as it is this is unlikely to lead to significant loss of timber income.
- 6.1.3 Felling in the OC will reduce the area of productive forestry but should not impact forest management or access at larger scale.
- 6.1.4 The infrastructure built for this section of the OHL could provide a benefit to the landowner for future forest management as it will provide access into previously isolated forest areas. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner(s).
- 6.1.5 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).
- 6.1.6 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0 ha.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 Along the Lone Burn there is opportunity for the planting of riparian broadleaved woodland within this ownership to benefit environmental value in the area. Planting opportunities might exist north of the Proposed OHL Alignment and should be discussed with the landowner.
- 7.1.2 Some areas of the forest might be candidate for deforestation under current guidance on management of afforested deep peat. This could potentially reduce the compensatory planting and / or restock requirements.

7.2 Restructuring

- 7.2.1 The section of forest within this ownership is single aged and will likely be felled all at once. Therefore, there is no positive or negative impact of the felling on the structure within the ownership.
- 7.2.2 The felling of the OC and the building of the infrastructure for the development will create new green edges, which will allow the landowner to work to in the future if that is desired. It is unlikely that this will benefit forest structure in the short term as nearly all mature forest will need to be felled to facilitate the construction of the OHL and the OC cuts of a strip of the forest rather than dividing it into multiple management units.

7.3 Restocking

- 7.3.1 In case the management felling north of the OC takes place there will be a restock obligation on the landowner unless this area is suitable for peatland restoration. Considering the shape of the ownership and the location of the restock, access to the restock for establishment and protection will be very difficult unless agreement can be reached with the ownership to the north.
- 7.3.2 Areas of deep peat that could be deforested under current guidance for management of afforested deep peat would reduce the restock obligation on the landowner.

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



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 CB8-16 and CB8-19. 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

| Item | Woodland Type | Area (ha) |
|------------------------------|---------------------------|-----------|
| Operational corridor felling | Conifer Plantation (90 m) | 6.56 |
| Total area | | 6.56 |

Table 8.2: Compensatory Planting

| ltem | Woodland Type | Area (ha) |
|----------------------------|--------------------|-----------|
| Compensatory Planting Area | Conifer plantation | 6.56 |
| Total area | | 6.56 |

Table 8.3: Woodland Removal Impact of Infrastructure

| Item | Area (ha) | |
|----------------------------------|-----------|--|
| Total Loss of Woodland Area | | |
| Total Compensatory Planting Area | 6.56 | |
| 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 | 5.25 |
| Replanting / Restocking Opportunities | Conifer Plantation | 5.25 |
| 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 6.56 ha. This could be reduced by deforesting areas of deep peat under current guidelines regarding management of afforested deep peats.

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



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.



