

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

Appendix 12.1.81 – Woodland Report Parcel 38, Speymouth





APPENDIX 12.1.81 - Woodland Report. Parcel 38, Speymouth

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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.
 - This woodland report has been prepared to assess the potential impacts of the Proposed Development on Woodland, Parcel 38, Speymouth Forest. 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 were 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 12.1.81a Parcel 38 Location Map. This woodland report (Appendix 12.1.82) considers the Speymouth Forest as a large commercial forestry plantation managed by Forestry and Land Scotland (FLS) on behalf of the Scottish Ministers, situated 3.22 km south of the town of Fochabers (NJ 338511 564451) within the Moray Council region. It is a key landscape feature in the area and important for timber production as well as local recreation.
- 2.1.2 The unclassified U14E Fochabers to Boat o' Brig public road runs along the west of the forestry and the A96 is located to the east, serving as a key access route.

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

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>



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.

- 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 native woodland and 90 m within the commercial woodlands within Woodland Parcel 38, taking into account the requirements of the conductor blowout assessment. The OC is illustrated in Figure 12.1.81b: Parcel 38 Proposed Felling Requirement.

3.2 Access Track Route Design

3.2.1 Existing access tracks within the forest will be upgraded to facilitate access. Temporary access tracks will be created across agricultural ground. Permanent access tracks will be created in the east of the forest.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland in and around the OC consists of plantation of mainly Scots pine (SP) and Sitka spruce (SS) with other species such as lodgepole pine (LP) and larch (L) forming minor components. Small quantities of broadleaves (BL) are found where the OC crosses burns or gullies or along forest edges.
- 4.1.2 The landform is dominated by the low forested hills of Moray with farmland on the lower ground and coniferous forests on the hills.
- 4.1.3 Considering the large extent of the woodland in this ownership, exposure levels vary significantly. On the high ground in the Wood of Ordiequish exposure is moderate with a Detailed Aspect Method of Scoring DAMS of 143. On the northern face of the Wood of Ordiequish, where the woodland borders the A96, the forest is more sheltered with a DAMS score of 8.

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.

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



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- 4.1.4 The National Soil Map of Scotland⁴ indicates soil conditions throughout the ownership are varied depending on altitude and slope. On the higher ground podzols / podzolic ironpans dominate whereas the soils on the slopes towards the A96 appear more gleyed in nature. Both the ironpan and the gleying will restrict rooting depth affecting stability.
- 4.15 The Ecological Site Classification (ESC)⁵ identifies the site as having a cool, sheltered and moist climate. The soils have a slightly dry moisture status and very poor nutrient status.
- 4.1.6 A small section of woodland located between towers CB14-1B and CB14-2B has been identified in the Native Woodland Survey of Scotland (NWSS)⁶ as classified under the "Nearly Native" category. This designation indicates that while the woodland contains a notable presence of native species, it does not fully meet the criteria to be classified as "Native Woodland" due to the composition and condition of the stand. According to the NWSS data, the dominant habitat type within this woodland parcel is recorded as non-native, suggesting that non-native species—either in canopy or understorey—constitute a significant proportion of the vegetation cover. The majority of the block is classified as Long-Established Plantation Origin (LEPO) on the NatureScot Ancient Woodland Inventory (AWI)⁷
- 4.1.7 On the eastern edge of the ownership the OC coincides with a heritage feature, Burn of Redpath Bridge (16873) as noted within the Moray Council Historic Environmental Records (HER)⁸.
- 4.1.8 Both the Wood of Ordiequish and Whiteash Hill Wood contain cycling trails which partly coincide with the OC.
- 4.19 The A96 will form a significant constraint to any operations directly adjacent to the trunk road. An existing 33 kV OHL coincides with the OC at approximately CB14-5
- 4.1.10 An existing Forest Design Plan (FDP 12)⁹ covers all the woodlands in this ownership with the exception of the woodland managed by the Trunk Road Authority. No approved clear-fells coincide with the OC. At around CB14-7A the OC coincides with what appears to be research blocks.
- 4.1.11 The proposed section of OHL consists of a section of OC between towers CB14-3 and CB14-16A. Proposed tracks in this section are either found within the OC, make use of existing infrastructure or cross other ownerships.
- 4.1.12 There is a good network of forest roads through the Wood of Ordiequish and through Whiteash Hill Wood. For the operations relating to the Proposed OHL Alignment several different entrances into the forest will need to be used
 - Regular forest operations are taking place in the blocks and the majority of roads are suitable for timber haulage. Some road upgrades / maintenance is likely required to facilitate the operations, particularly in the sections directly north and south of the A96.
- 4.1.13 Considering the quality and quantity of the material and the landform, operations can largely be carried out by harvester / forwarder combinations. In steep gullies and adjacent to the A96 an element of hand felling is likely required. Mulching on a very small scale will be required around CB14-9A and CB14-15A.

⁴ Scottish Government (2024). National Soil Maps. Available online at: https://soils.environment.gov.scot/maps/soil-maps/national-soil-map-of-scotland/

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

⁶ Scottish Forestry (2014). Available online at: https://www.forestry.gov.scot/forests-environment/biodiversity/native-woodlands/native-woodland-survey-of-scotland-nwss

⁷ NatureScot. Available online at: https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi

⁸ Moray Council, Historic Environmental Records, 2020. Available online at:

https://online.aberdeenshire.gov.uk/smrpub/master/detail.aspx?tab=main&refno=NJ35NE0005

⁹ Forestry and Land Scotland (2016). Available online at: https://forestryandland.gov.scot/media/nbmczt4k/spey-mouth-land-management-plan-draftpdf.pdf



4.1.14 Between CB14-15A and CB14-16A, around the Burn of Redpath Bridge, an area of forest is found where access is severely restricted due to steep slopes, the heritage feature (Burn of Redpath Bridge), and a watercourse that runs under the bridge. The area on the property boundary south-east of the watercourse could potentially be extracted across the neighbouring land (Parcel 3064) to avoid crossing the burn where this might lead to diffuse pollution.

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 2: Existing 33 kV OHL, its wayleave and the gully demonstrating broadleaves south of CB14-5 (NJ 346678 568642, looking east)

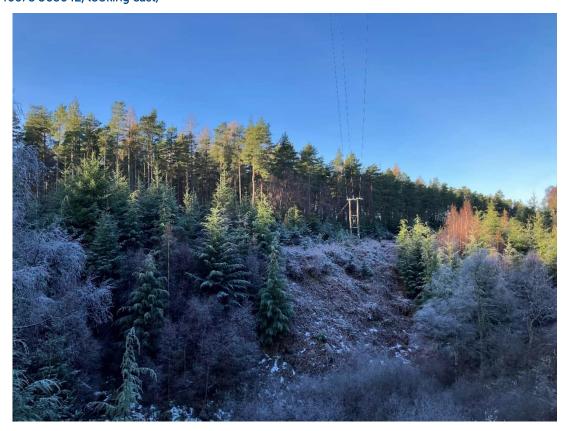


Photo 3: Scots pine and larch plantation with potential windfirm edge around CB14-4 (NJ 346631 568591, looking northwest)





Photo 4: Wind damaged lodgepole pine, potential research plot (NJ 354341 567042, looking southeast)



Photo 5: Scots pine plantation coinciding with cycle track north of CB14-8A (NJ 356782 566831, looking northeast)





Photo 6: Gully classified as LEPO looking south between CB14-8A and CB14-9A (NJ 360962 566341, looking south)



Photo 7: Area of regeneration surrounded by Sitka spruce and lodgepole pine at CB14-9A (NJ 363601 565392, looking west)





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Photo 8: Sitka spruce plantation around CB14-10A (NJ 365061 564721, looking northeast)



Photo 9: Sporadic oak planting along Burn of Fochabers (NJ 368191 563982, looking east)





Photo 10: Entrance onto A96 from south of A96 and north of Burn of Fochabers showing Scots pine



Photo 11: Steep slopes along Meikle Dramlach at CB14-11B (NJ 369031 564252, looking southeast)





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Photo 12: Sitka spruce plantation south of CB14-10A (NJ 362802 562926, looking northeast)



Photo 13: Sitka spruce plantation south of CB14-8A and existing infrastructure (NJ 357181 566482, looking west)





Photo 14: Scots pine plantation south of CB14-3 (NJ 338951 567932, looking north)





Photo 15: Sitka spruce plantation and regen at CB14-15A (NJ 380451 560181, looking south)





Photo 16: Burn in steep sided gully between CB14-15A and CB14-16A (NJ 382461 559182, looking southwest)





Photo 17: Mature Sitka spruce crop and beech field boundary looking south towards CB14-12A (NJ 374612 564952, looking southwest)





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Photo 18: Unthinned Scots pine looking down towards the A96 at CB14-12A (NJ 370622 563661, looking southwest)



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 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) 10 for the implementation of the works required.
- 5.1.2 Considering the exposure and maturity of the crop there is a high risk of wind blow as a result of the felling of the OC, particularly on the higher ground in the Wood of Ordiequish.

¹⁰ Scottish Forestry (2024). Available online at: https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs (accessed 01/05/2025)



6 Woodland Management Impact

- 6.1.1 As can be seen in the current Land Management Plan for Speymouth Forest (Forest Design Plan 12), the current woodland management throughout the vast majority of woodland coinciding with the OC is Low-Impact Silviculture Systems (LISS). This is particularly the case for the mature Scots pine in the western section of the forest block. This management type is defined by small scale operations to regenerate the forest whilst retaining an overstorey. As a result of the felling of the OC, it is expected that the forest edges along the OC will be severely destabilized and significant areas of management felling have been identified. The felling of the OC and the management felling will form a drastic shift in management strategy in areas affected, resulting in loss of canopy and large clear-fells. However, considering the age of the pine, the changes will likely have a limited impact on profitability.
- 6.1.2 Several other areas, particularly areas of SS and LP north of the existing 33 kV OHL, are planned for clear-fell. The area of wind damaged LP for example is currently proposed for felling between 2026 and 2030, whilst the adjacent SS is proposed for felling in the period 2031-2035. As such the felling will not be a significant change of management type, however the early felling will impact profitability.
- 6.1.3 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 currently poorly accessible areas such as between the Burn of Fochabers and the A96. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner(s).
- 6.1.4 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 (Forestry Industry Safety Accord FISA 804 "Electricity at Work: Forestry"11).
- 6.1.5 The total loss of Native Broadleaved woodland resulting from the Proposed OHL Alignment is 1.1 ha. This consists of an area along the Burn of Fochabers.

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 To mitigate the landscape impact on this section of the Proposed Development, a replanting strategy for areas within the Wood of Ordiequish has been set out in **Appendix 7.6 Forestry Landscape Mitigation Principles** in the Landscape chapter will be followed where possible, on both slopes of the Hill of Ordiequish. Areas in which this applies are demonstrated in **Figure 12.1.81c: Parcel 38 Proposed Planting Areas**.
- 7.1.2 Selective Crown Reduction / Selective Felling focused on mature trees with high ecological value, ensuring that reduction is carried out in a manner that retains structural diversity.
- 7.1.3 Retention of Deadwood and Pruned Material where possible, pruned branches and deadwood should be left on-site to enhance biodiversity, providing habitat for insects, fungi, and small mammals
- 7.1.4 The area of crown reduction is estimated at 0.65 ha.

7.2 Restructuring

7.2.1 Considering the area of felling required, the Proposed Development will have an impact on forest structure within the Speymouth Forest. However, the block is generally mature and extends far beyond the OC and management felling. The reestablishment of the felled areas as a result of the Proposed Development, although large and contiguous, will lead to a different age category in the block.

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

The felling of the OC for the Proposed Development will create new green edges, which will allow the landowner to work to in the future if that is desired. In the long term this might benefit forest structure.

7.3 Restocking

- In case the management felling of the OC takes place there will be a restock obligation on the landowner. Management felling is covered in more detail in the Forestry Chapter in paragraph 12.4.22.
- As set out in the Landscape chapter under the 'Landscape Replanting Proposals', restocking can potentially take place within the OC to mitigate the visual impact of the OC. Restocking within the OC will be carried out by the applicant. Detail shown in Figure 12.1.81c: Parcel 38 Proposed Planting Areas.

Net Effect / Summary 8

8.1.1 Tables 8.1 to 8.4 outline the operational requirements for forestry management within the OC between towers CB14-2B and CB14-16A. It details 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.

ltem	Woodland Type	Area (ha)
Operational corridor felling	Mature Conifer Plantation (90 m)	30.82
Operational corridor felling	Native broadleaves (70 m)	0.94
Crown Reduction / Selective Felling	Mature Conifer Plantation (70 m)	0.65
Access Track Felling		0.00
Total area		32.40

Table 8.2: Compensatory Planting

ltem	Woodland Type	Area (ha)
Compensatory Planting Area	Mature Conifer Plantation (90 m)	30.82
Compensatory Planting Area	Native broadleaves (70 m)	0.94
Compensatory Planting Area	Mature Conifer Plantation (70 m)	0.65
Total area		32.40

Table 8.3: Woodland Removal Impact of Infrastructure

	Item	Area (ha)
Total Loss	s of Woodland Area	32.40
Total Comp	ensatory Planting Area	32.40
Total Net Loss of Woodland Area		0.00

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

Item	Woodland Type	Area (ha)
Management Felling	Mature Conifer Plantation (90 m)	121.54
Replanting / Restocking Opportunities	Mature Conifer Plantation (90 m)	121.54
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)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, 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 32.40 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 local authority area.

¹² 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

