

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

Appendices 12.1.66 & 12.1.67: Woodland Report Parcels 794 & 560, Coldwells





APPENDICES 12.1.66 & 12.1.67: Woodland Report Parcels 794 & 560, Coldwells

| 1 | Intro | ntroduction | | |
|---|-------|--|----|--|
| 2 | Woo | odland Property | 2 | |
| 3 | | relopment Requirements | | |
| | 3.1 | 400 kV Overhead Line Infrastructure Requirements | 2 | |
| 4 | Woo | odland Characteristics | 3 | |
| | | Woodland Composition and Site Conditions | | |
| 5 | | dblow Risk | | |
| 6 | Woo | odland Management Impact | 9 | |
| 7 | Mitig | gation Opportunities | 9 | |
| | 7.1 | Woodland Mitigation Measures | 9 | |
| | 7.2 | Restructuring | 10 | |
| | | Restocking | 10 | |
| 8 | Net | Effect / Summary | 10 | |
| 9 | | | | |

Appendix Figures

Figure 12.1.66a: Parcel 794 Location Map Figure 12.1.67a: Parcel 560 Location Map

Figure 12.1.66b: Parcel 794 Proposed Felling Requirement Figure 12.1.67b: Parcel 560 Proposed Felling Requirement Figure 12.1.67c: Parcel 560 Proposed Planting Areas



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.
- 1.1.3 This woodland report assesses the potential impacts of the Proposed Development on Woodland, Parcels 794 and 560, Coldwells. 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 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 12.1.66-12.1.67a: Parcels 794 and 560 Location Map. These forests, in ownership of Coldwells Estate, are found within a complex of forest areas around Loch Dallas and consist mainly of productive non-native conifer, a large percentage of the forest plantation in this parcel consist of recent restocks. The forests are situated approximately 4.2 km south of Dallas (NJ 129422 477318) in the Moray Council area.

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: The Electricity Safety, Quality and Continuity Regulations 2002.

² UK Gov (1989). Electricity Act 1989. Available at: <u>Electricity Act 1989</u>



TRANSMISSION

- 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 Parcels 794 and 560 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in Figure 12.1.66b: Parcel 794 Proposed Felling Requirement and 12.1.67a: Parcel 794 Proposed Felling Requirement Location Map.

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

- 4.1.1 The woodland was surveyed in September 2024. The forests in these parcels are found within a complex of forested areas around Loch Dallas. These parcels are bordered by Clashgour (890) and the river Lossie on the western side and the road from Dallas to Knockando on the eastern side. The Proposed OHL Alignment cuts through the middle of both parcels.
- 4.1.2 The forests in and around the OC consist of young plantations, recently planted, recently felled and mature forest consisting of pine, spruce and larch.
- 4.1.3 Recent felling has been carried out just north of the OC. Recent restocking has taken place with a mixture of Sitka spruce and Lodgepole pine around CB8-26. The area is currently covered under an LTFP (20FGS53143).
- 4.1.4 The section of Proposed OHL Alignment is moderately exposed to the Detailed Aspect Method of Scoring (DAMS) score is 14^{3,4}.
- 4.15 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/



TRANSMISSION

- 4.1.6 The National Soil Map of Scotland⁶ indicates, the predominant soil type within the affected areas consists of blanket peats. The area is relatively flat with the exception of the banks along the river Lossie. Soils are characterized by a peaty horizon over mineral.
- 4.1.7 No environmental designations apply to this parcel.
- 4.1.8 The landscape is characterised by the upland moorland and forestry of Moray.
- 4.19 The Proposed OHL Alignment consists of a section of OC between towers CB8-24 and CB9-6A. Proposed tracks in this section are found within the OC or follow existing infrastructure.
- 4.1.10 There is good existing forest road infrastructure throughout the block. In the westerns section a good forest road could facilitate operations in the mature crops. The younger crops further east are easily accessible from a forest road in the eastern section or using access tracks from the main haul road to the south. There are several minor burns within the ownership, but the existing infrastructure allows for access from either side of the burns. Roads in the eastern section are of poorer quality but as there is no timber haulage necessary, they will likely suffice for forest operations.
- 4.1.11 Considering the quality and quantity of the material and the landform, felling of mature crops can be carried out with harvester / forwarder combinations. Areas of recent restock can be mulched. The area between CB8-16A and CB9-1A has only recently been planted and therefore trees could be pulled out to reduce the environmental impact of operations.
- 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.

⁶ 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-agreed-routes-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 of recent restocks towards CB9-5A with mature larch in background and existing infrastructure (NJ 150654 478937, looking northeast)



Photo 2: Recent Sitka / lodgepole restocks between towers CB8-26A and CB9-1A (NJ 139571 476641, looking north)





Photo 3: Sitka / lodgepole restocks with remnant high forest between towers CB9-1A and CB9-2A (NJ 141844 474354, looking north)

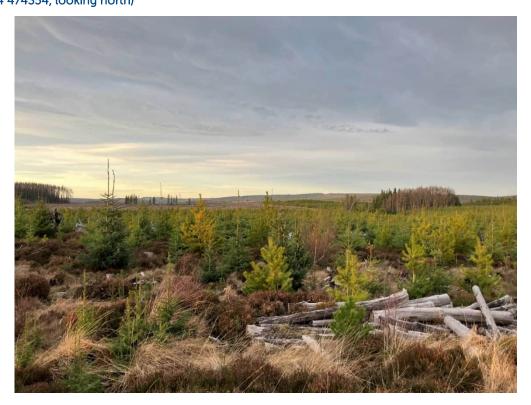


Photo 4: Mature Sitka and larch alongside existing infrastructure towards tower CB8-25 (NJ 131844 474241, looking northeast)

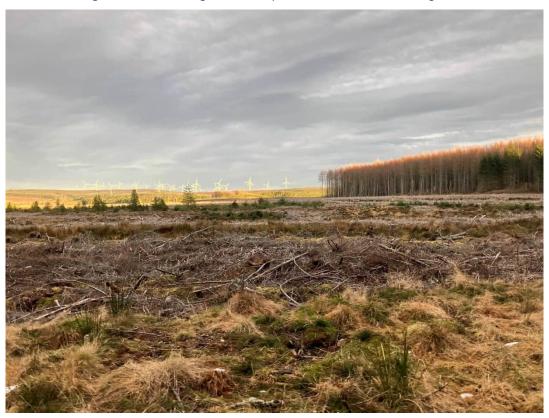




Photo 5: Steep slopes down to river Lossie (NJ 132824 475986, looking west)



Photo 6: Recent felling north of remaining mature crop (NJ 133564 479211, looking east)





TRANSMISSION

Photo 7: Signs of instability in Sitka spruce (NJ 133465 477668, looking east)



Photo 8: Young naturally regenerated trees along the road (NJ 152667 484637, looking southwest)





5 Windblow Risk

- It is acknowledged that the creation of the OC would result in wider potential indirect effects on the surrounding 5.1.1 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 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 Standard (UKFS)⁹ for the implementation of the works required.
- 5.1.2 Considering the existing signs of instability and the mature, unthinned nature of the remaining crop there is a high risk of further windblow as a result of the felling of the OC in the mature crops. The majority of this parcel however consists of recent restocks which are unlikely to be destabilised as a result of the felling of the OC.

6 **Woodland Management Impact**

- 6.1.1 The forest management impact on the Proposed OHL Alignment is most strongly felt in the western extent of the property. The mature forest in this area will likely be destabilized by the creation of brown edges in the crop and therefore management felling is recommended. Crops in this area are not far from their optimal harvesting age, but they do make up an important part of the forest structure and therefore retention would have likely been desirable.
- 6.1.2 In the younger crops the Proposed OHL Alignment will have limited impact as only the area within the OC is affected. Deforestation in the OC will reduce the area available for growing productive conifer which will have a lasting impact on productivity of the forest.
- 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 will reduce extraction distances in future rotations. This benefit is limited as the majority of the plantation farthest from the existing infrastructure has been felled and it will be several decades before felling takes place again.
- As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner(s) to ensure future viability of the remaining forest block north of the OC.
- 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 0.0 hectares (ha).

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 has been set out in Appendix 7.6 Forestry Landscape Mitigation Principles as demonstrated in Figure 12.1.67c: Parcel 560 Proposed Planting Areas.

⁹ Scottish Forestry (2024). UK Forestry Standard (UKFS). Available at: https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs
¹⁰ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: https://ukfisa.com/Safety/Safety-Guides/fisa-804



7.2 Restructuring

- 7.2.1 The removal of a significant part of the mature crops in the ownership as a result of the OC felling and proposed management felling will have a negative impact on the structure of the plantation in this ownership. Minimization of management felling is therefore recommended.
- 7.2.2 The felling of the OC for the development will create new green edges, which will allow the landowner to work to in the future if that is desired. This will create smaller management units which, with the additional infrastructure, could be managed to create a more diverse age structure and more stable forest plantation.

7.3 Restocking

- 7.3.1 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 12.1.67c**: **Parcel 560 Proposed Planting Areas**.
- 7.3.2 In case the management felling surrounding the OC takes place there will be a restock obligation on 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 CB8-24 and CB9-6A. 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

| ltem | Woodland Type | Area (ha) |
|------------|---------------------------|-----------|
| OC felling | Conifer Plantation (90 m) | 18.50 |
| Total area | | 18.50 |

Table 8.2: Compensatory Planting

| Item | Woodland Type | Area (ha) |
|-------------------------------|--------------------|-----------|
| Compensatory Planting Area | Conifer plantation | 18.50 |
| Total area | | 18.50 |

Table 8.3: Woodland Removal Impact of Infrastructure

| ltem | Area (ha) |
|----------------------------------|-----------|
| Total Loss of Woodland Area | 18.50 |
| Total Compensatory Planting Area | 18.50 |
| 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 | 15.63 | |
| Replanting / Restocking Opportunities | Conifer Plantation | 15.63 | |
| Net Loss of Woodland Area | | | |



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 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 18.50 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 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.

 $^{^{11}}$ Forestry Commission Scotland (2009). Control of Woodland Removal Policy. Available at: $\frac{\text{https://www.forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal/viewdocument/285}$

