

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

**Appendix 12.1.122: Woodland Report Parcel
13756, Bulwark Moss Woodland**



APPENDIX 12.1.122: Woodland Report Parcel 13756, Bulwark Moss Woodland

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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.
- 1.1.3 This woodland report assesses the potential impacts of the Proposed Development on woodland, Parcel 13756, Bulwark Moss 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.
- 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 12.1.122a: Parcel 13756 Location Map**. The forest parcel is situated approximately 4 km southeast of New Deer, within the Aberdeen Council region (NJ 926691 458733). The forest is a semi mature mixed conifer commercial plantation.

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.

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: [Electricity Act 1989](#)

- 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 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 90 m in width is required throughout the conifer woodland within Woodland Parcel 13756 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.122b: Parcel 13756 Proposed Felling Requirement**.

3.2 Access Track Route Design

- 3.2.1 Temporary access tracks will be created within the OC and across open fields to access tower NP2-12A.

4 Woodland Characteristics

4.1 Woodland Compositions and Site Conditions

- 4.1.1 The forest was surveyed in December 2024. The forest is a semi mature commercial plantation of Sitka spruce (SS) and Norway spruce (NS), there are small pockets of native broadleaves along the eastern boundary. Species include rowan (ROW), willow (WL) and downy birch (DBI). The northeastern boundary of the property is notably waterlogged, which has created unfavourable growing conditions in that area. This excess moisture has likely weakened root structures, making the trees more susceptible to external stresses. As a result, the woodland has experienced a degree of windblow, particularly in the waterlogged sections, where the combination of poor drainage and exposure to prevailing winds has increased tree instability.
- 4.1.2 The area is moderately exposed with a maximum Detailed Aspect Method of Scoring (DAMS) score of 14³⁴.
- 4.1.3 The National Soil Map of Scotland⁵ identifies the site as being predominantly noncalcareous gleys with peaty gleys, with parent material of drifts derived from intermediate rocks or mixed acid and basic rocks, both metamorphic and igneous.
- 4.1.4 The Ecological Site Classification (ESC)⁶ identifies the site as having a cool, moderately exposed and moist climate. The soils have a wet moisture status and a very poor nutrient status.
- 4.1.5 The proposed section of OHL consists of a section of OC between towers NP2-11A and NP2-13A.

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 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/>

- 4.1.6 The closest public road suitable for haulage of timber within the ownership is the unclassified Auchnagatt to Maud Road to the east. This is classified as a Consultation Route by the Timber Transport Forum⁷. Considering the quality and quantity of the material and the landform operations can be carried out by harvester / forwarder combinations. Due to the access restrictions, having to cross open farmland. It is recommended that the proposed temporary access tracks are installed prior to felling to facilitate extraction.

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 928164 459453 looking southwest towards tower NP2-12A from the unclassified Auchnagatt to Maud Road into the woodland, showing semi mature conifer woodland. The entire plantation will require felling as the OC will create an unstable edge, increasing the risk of significant windblow.



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

The Agreed Routes Maps identify the consultation routes as:

Consultation Routes

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 926224 459163 looking south into the woodland, the image highlights areas of poor drainage, evidenced by waterlogged soils and the presence of rush species (*Juncus* spp.), which are indicative of persistently wet conditions. These conditions may impact tree stability, root development, and overall productivity, increasing susceptibility to windblow.



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 (UKFS)⁸ for the implementation of the works required.
- 5.1.2 There is a significant risk of windblow as a result of the proposed felling, heightened by the current condition of the crop and the extent of soil waterlogging observed on site. Where rooting depth is restricted by prolonged waterlogging, even moderate storm events may trigger progressive windblow that propagates back into the stand from the newly created edge.

⁸ Scottish Forestry (2024). UK Forestry Standard (UKFS). Available at: <https://www.forestry.gov.scot/publications/sustainable-forestry/uk-forestry-standard-ukfs>

6 Woodland Management Impact

- 6.1.1 In the long-term the OC will reduce the management unit leaving small forest blocks to the north and south of the OC. These will not be of commercial interest considering their size, location and constraints. This will have a negative impact on productivity of the land in this ownership.
- 6.1.2 The infrastructure built for this section of the OHL could provide a minor benefit to the landowner for future access to the trees. However, as mentioned above, it is unlikely the areas remaining on either side of the OC will be suitable for productive forestry. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner.
- 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 OC which will avoid the incidences of "Red Zone" trees (Forest Industry Safety Accord, FISA 804 "Electricity at Work: Forestry"⁹).
- 6.1.4 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0.00 ha.

7 Mitigation Opportunities

7.1 Restructuring

- 7.1.1 As the proposed operations will remove a large part of the mature trees within the ownership, the woodland structure will be negatively impacted.
- 7.1.2 The felling of the OC for the development will create new green edges to which the landowner can work to in the future. As the management units either side of the OC are relatively small this is likely of limited benefit to the landowner.

7.2 Restocking

- 7.2.1 If management felling takes place this would impose a restock obligation on the landowner. Considering the size of the remaining management units and the constraints (OC), it is likely that the future woodland type will change from productive to non-productive.

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 NP2-11A and NP2-13A. They detail the areas designated for clear felling, both within the access track and additional recommended Management Felling outside the access track to address windthrow risks and forest design considerations.

Table 8.1: Woodland removal for Infrastructure, within OC

Item	Woodland Type	Area (ha)
OC Felling	Mixed Conifer (90 m)	3.02
Access Track Felling		0.00
Total area		3.02

⁹ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: <https://ukfisa.com/Safety/Safety-Guides/fisa-804>

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Mixed Conifer	3.02
Total area		3.02

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	3.02
Total Compensatory Planting Area	3.02
Total Net Loss of Woodland Area	0.00

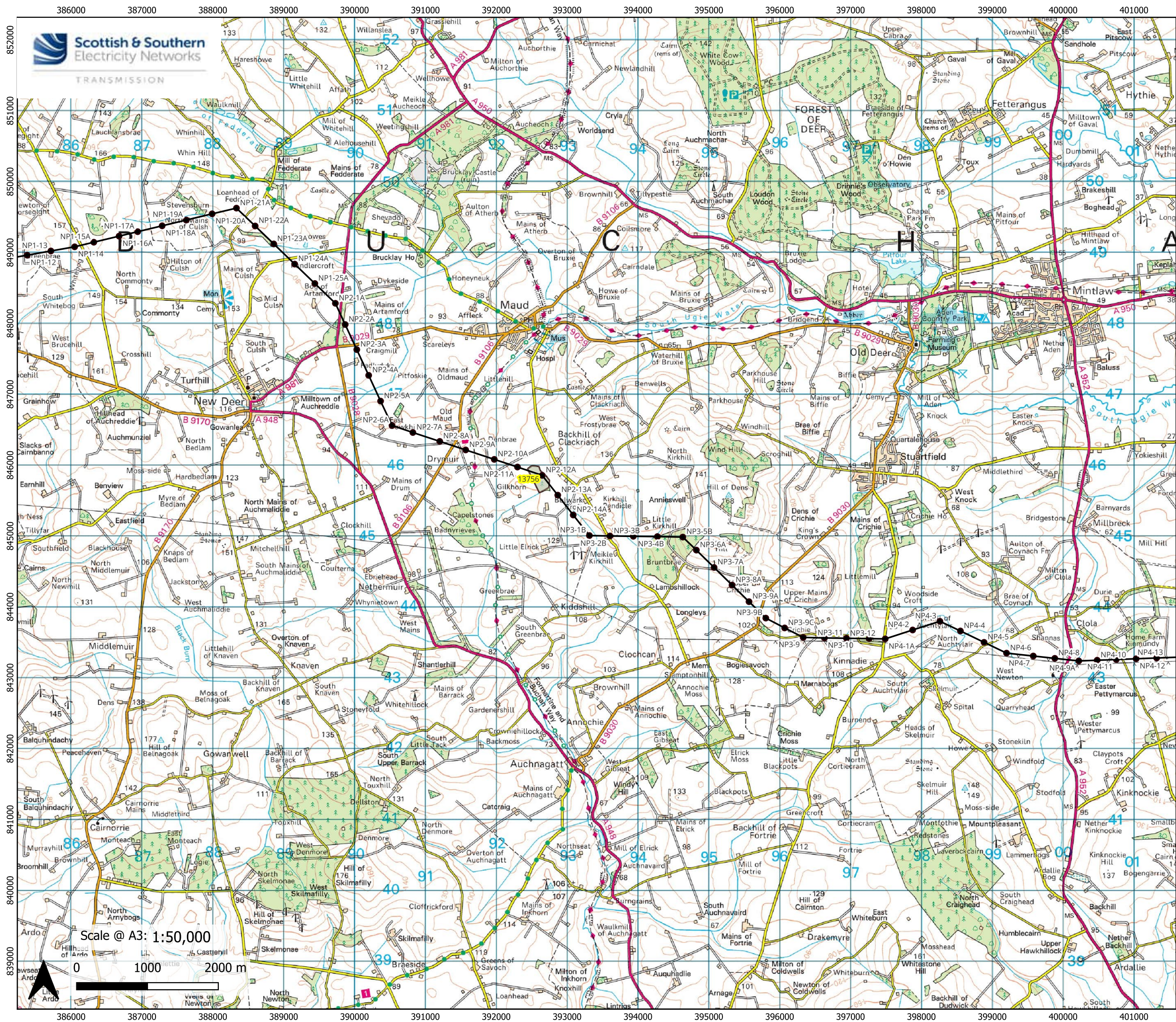
Table 8.4: Woodland removal for Management Felling, outwith OC

Item	Woodland Type	Area (ha)
Management Felling	Mixed Conifer	2.22
Replanting / Restocking Opportunities		2.22
Net Loss of Woodland Area		0.00

9 Compensatory Planting

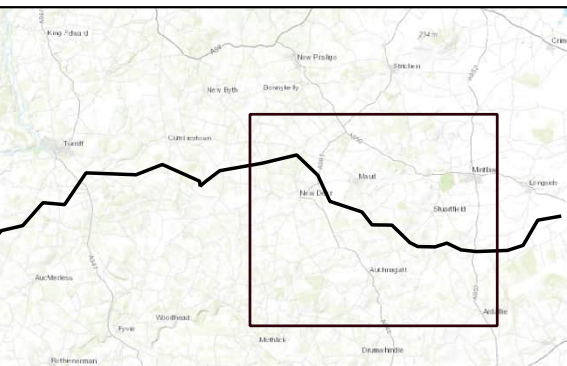
- 9.1.1 Only areas directly impacted by the OC and access tracks will be included in the compensatory planting total, in accordance with the Control of Woodland Removal Policy (CoWRP)¹⁰. This policy ensures that woodland loss due to development is mitigated by appropriate replanting or regeneration efforts, 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 3.02 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 local authority area.

¹⁰ 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>



Legend

- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- ▭ Landownership Boundary/Parcel

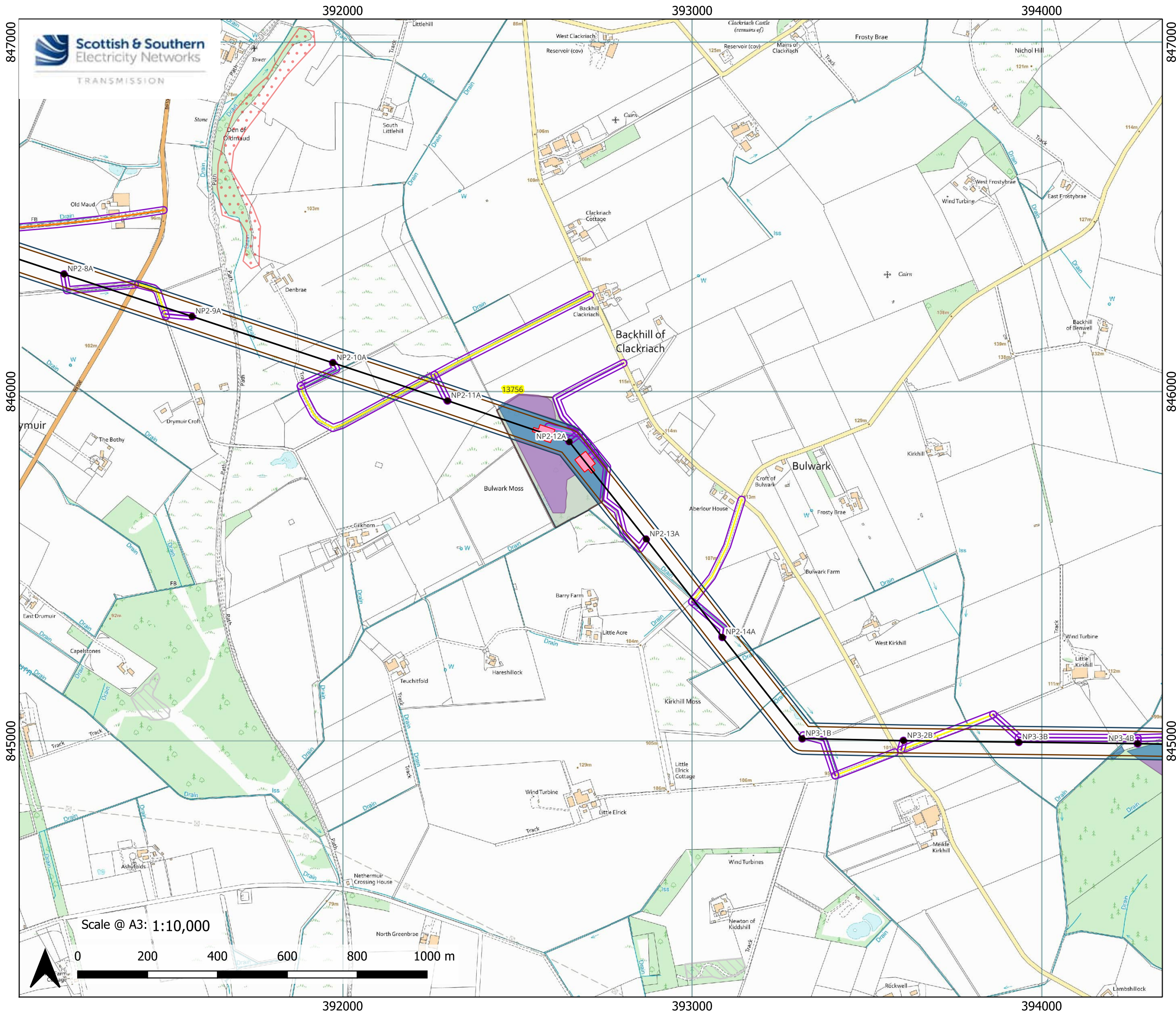


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Project:
Beaulieu to Blackhilllock to New Deer to Peterhead 400 kV
OHL Project

Title:
Figure 12.1.122a Parcel 13756 Location Map

Drawn by: LA



Legend

- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- Proposed Conductor Pulling Area (EPZ)
- 70m Operational Corridor - Broadleaved Woodland
- 90m Operational Corridor - Commercial Woodland
- Access Track 20m Buffer

Proposed Access Tracks

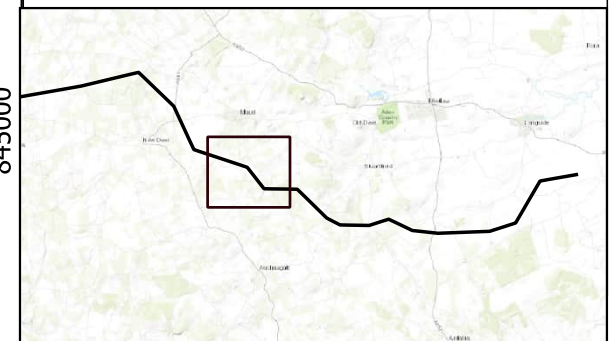
- Existing Access – Upgrade – Good/Fair Condition
- Existing Access – Upgrade – Poor Condition
- Proposed Access – ATV or Temporary Trackway
- Proposed Access – Temporary

Proposed Felling Requirements

- Mixed Conifer Operational Corridor Felling
- Mixed Conifer Management Felling
- Native Woodland Survey Scotland (NWSS)

Ancient Woodland Inventory

- Ancient (of semi-natural origin)
- Landownership Boundary/Parcel



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Project:
Beauly to Blackhillock to New Deer to Peterhead 400 kV
OHL Project

Title: **Figure 12.1.122b** Parcel 13756 Proposed
Felling Requirements

Drawn by: LA