

**Volume 5: Appendix 8.2.11 – Woodland Report:
Small Woodlands Report**

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1. WOODLAND REPORT: SMALL WOODLANDS

1.1 Introduction

- 1.1.1 This Woodland Report has been prepared by Scottish Hydro Electric Transmission plc (the Applicant) who, operating and known as Scottish and Southern Electricity Networks Transmission (SSEN Transmission), own, operate and develop the high voltage electricity transmission system in the north of Scotland and remote islands.
- 1.1.2 This Woodland Report will accompany an application for Consent under Section 37 of the *Electricity Act 1989*¹ (as amended) and Section 57(2) of the *Town and Country Planning (Scotland) Act 1997* to construct and operate approximately 105.2 kilometres (km) of new double circuit 400 kilovolts (kV) overhead transmission line (OHL) between Kintore and Tealing (hereafter referred to as the 'Proposed Development'). A full description of the Proposed Development and its ancillary works is set out within **Volume 1, Chapter 3: Project Description** of this EIAR.

1.2 Purpose of this Woodland Report

- 1.2.1 As part of the Environmental Impact Assessment (EIA) process, it was identified that the OHL construction and the access tracks required to construct the Proposed Development would cross a number of woodland areas within private or state-owned landholdings.
- 1.2.2 This Woodland Report provides a conceptual assessment of the woodland areas that are affected by the Proposed Development, including the requirement of woodland removal and management recommendations to mitigate the impact of the woodland removal.
- 1.2.3 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 Woodland Report also sets out the area quantity (in hectares (ha)) to be compensatory planted to ensure no net loss of woodland is achieved as required by The Scottish Government's Policy on Control of Woodland Removal².

Requirement and Objectives of the Report

- 1.2.4 This Woodland Report details the works required to the woodland, including the felling and any restocking, due to the construction and operation of the Proposed Development.
- 1.2.5 The objectives of this Woodland Report are to:
- provide an assessment of the woodland areas that are affected by the Proposed Development, including the requirement for woodland removal and management recommendations to mitigate the impact of the woodland removal; and
 - describe any mitigation measures proposed to address likely impacts relating to loss of woodland and windthrow risk and to meet The Scottish Government's Policy on Control of Woodland Removal by identifying the required quantity for compensatory planting.

Limitations and Assumptions

- 1.2.6 All data included within this Woodland Report has been gathered from field surveys or desk-based assessments, which includes analysis of nationally held datasets, up to date aerial imagery and field measurements and data collection.
- 1.2.7 Baseline data was derived from Scotland's environmental web³ and Scottish Forestry map viewer⁴. The data sources identified in **paragraph 8.4.6 of Volume 2, Chapter 8: Forestry** were also used to inform this Woodland Report.

¹ UK Government, 1989. *Electricity Act 1989*. [Online] Available at: <https://www.legislation.gov.uk/ukpga/1989/29/contents>

² Forestry Commission Scotland, 2009. Scottish Government's Control of woodland Removal Policy [Online] Available at: <https://www.forestry.gov.scot/publications/285-the-scottish-government-s-policy-on-control-of-woodland-removal>

³ Scottish Forestry Land Information Search URL: https://map.environment.gov.scot/LIS_Agri/Agri.html

⁴ Scottish Forestry Map Viewer URL: <https://scottishforestry.maps.arcgis.com/apps/webappviewer/index.html?id=0d6125cfe892439ab0e5d0b74d9acc18>

- 1.2.8 Forests (or woodlands) comprise the land, of at least 0.5 ha (UKFS: V5 2023) under areas of trees with a canopy cover of at least 20%, or having the potential to achieve this, including the integral open space, as well as any felled areas awaiting replanting and are identified on the National Forest Inventory (NFI). The term 'forest' and 'forestry' for the purpose of this report is used to refer to areas that are typically coniferous that are managed for commercial timber production. The term 'wood' and 'woodlands' is used to refer to areas that are typically broadleaved and deciduous and not principally managed for timber production.
- 1.2.9 Woodland structure and age for the purpose of this Woodland Report have been categorised into an age class matrix:
- Young – young trees, generally less than 5 years old;
 - Immature – trees between approximately 6-15 years old;
 - Pole Stage – trees between 16 – 30 years old, primarily conifer;
 - Mature – trees considered to be of felling age, 31 –50 years and over; and
 - Established – established range of age classes with mature trees and an understory of younger trees.
- 1.2.10 In addition, to simplify the reader's understanding, a species matrix has been derived to categorise the species along the length of the Proposed Development:
- Felled – trees which have been felled and are awaiting restocking;
 - Mixed Broadleaves – broadleaf trees containing a range of species including native trees such as Oak or Birch, may also contain non-native trees such as Sycamore or Chestnut;
 - Mixed Woodland – a diverse mix of conifer and broadleaf trees with non-native species present;
 - Native Mixed Woodland – mixed woodland containing native broadleaf species such as Oak or Birch and including elements of Scots Pine;
 - Conifer – Conifer species; Sitka spruce, Norway spruce, Larch, Firs or Pines; and
 - Scrub/Regen – areas of unmanaged land with low density, self-seeded trees. A mixture of species with non-native conifer and broadleaf trees present.

1.3 Woodland Property

- 1.3.1 This report references woodlands across the length of the Proposed Development. These woodlands are small, individual, fragmented woodlands, shelterbelts and isolated trees that are under multiple ownerships and not part of any larger woodlands. These areas are all generally 0.5 hectares or less in size.

1.4 Development Requirements

Kintore to Tealing 400 kV OHL

- 1.4.1 The Study Area for this assessment is based on the required Operational Corridor (OC) (see **paragraphs 3.8.21 to 3.8.22 in Volume 1, Chapter 3: Project Description**). 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) 2002 regulations* and the *Electricity Act 1989*. The OC is defined 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 final 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 30 m. Where the OC passes through areas of native broadleaved woodland, it is noted that the width of woodland may be reduced, due to the general lower height and characteristics of the tree species present and as will be detailed in the Woodland Retention Plan.
- 1.4.2 The 400 kV OHL standard tower dimensions for the Proposed Development have a width of 11.2 m at the widest part (crossarm) of the tower ie from outside conductor to outside conductor, in addition to this the safety vicinity zone from each conductor is a 5.3 m radius around the conductor.

- 1.4.3 The OHL infrastructure and minimum safety clearance distance is therefore 90 m (45 m either side of the OHL centreline) and this has been utilised to calculate the area of the OC. In some cases, such as angle towers the requirement may be slightly in excess of this distance, however the average minimum distance has been used in this assessment.

Access Track Route Design

- 1.4.4 The design of access tracks has been developed by the project team considering both construction and operational access requirements, and with reference, where relevant, to NatureScot's good practice guide on constructing access tracks in Scottish uplands.⁵
- 1.4.5 Typical access solutions are set out below with respect to the different technology types proposed and a typical access track design is presented in **Volume 3, Figures 3.6.1 to 3.6.2: Typical Access Track Cross Sections (Indicative)**.

1.5 Woodland Characteristics

- 1.5.1 The composition of these woodlands is largely mixed broadleaves, with some areas identified as mixed woodlands due to the presence of occasional conifer trees. No data was provided as to the exact composition of any of the woodlands identified within this report. All species and age class data has been assumed from aerial photography and publicly available datasets.
- 1.5.2 A desk-based study of the woodland areas was conducted, utilising web-based data provided by Scottish Forestry³ and referencing the Scottish Government's Ancient Woodland Inventory, to identify current woodland environmental designations and classifications.
- 1.5.3 The Scottish Forestry Map Viewer⁴ provides spatial data on the Native Woodland Survey of Scotland⁶ and classifies the woodland types into four categories:
- Native woodland⁷;
 - Nearly-native woodland⁸;
 - Open land habitat⁹; and
 - Plantations on Ancient Woodland Sites (PAWS)¹⁰.
- 1.5.4 Desk-based study of the woodland area, using both the Ancient Woodland Inventory and the Native Woodland Survey of Scotland, has identified small areas of Long Established of Plantation Origin (LEPO) (2b – 1860) and Native Woodland as detailed in **Table 1: Woodland type affected by the Proposed Development**. Site surveys identified an area of woodland that was not classified as ancient but was identified as Ancient semi-natural native broadleaved woodland (ASNW) 2a.

⁵ Scottish Natural Heritage, 2013 (Updated 2015). Constructed tracks in the Scottish Uplands (2nd Edition). URL: <https://cairngorms.co.uk/wp-content/uploads/2019/09/CD039-Scottish-Natural-Heritage-Constructed-tracks-in-the-Scottish-Uplands-2015.pdf>

⁶ Scottish Forestry Native Woodland Survey of Scotland: Glossary of Terms; URL: <https://www.forestry.gov.scot/publications/75-native-woodland-survey-of-scotland-glossary-of-terms/viewdocument/75>

⁷ Native Woodland – woods where the canopy cover is composed mainly of native species (ie over 50%)

⁸ Nearly Native Woodland - where native species make up between 40% and 50% of the canopy. These are woods that could have potential to be converted into native woodlands by altering their species mix.

⁹ Open Land Habitat – areas with <20% canopy cover of trees and shrubs adjoining a native woodland.

¹⁰ PAWS - Plantations on Ancient Woodland Sites. These are surveyed in the NWSS where they are recorded in the Scottish ancient woodland inventory (SAWI). These woodlands appear to have originated through natural regeneration sometime before the mid-19th century, but were later converted to planted woods.

Table 1: Woodland type affected by the Proposed Development

Woodland	Ancient semi-natural native broadleaved woodland (ASNW) 1a	Ancient semi-natural native broadleaved woodland (ASNW) 2a	Long Established of Plantation Origin (LEPO) (1b – 1750)	Long Established of Plantation Origin (LEPO) (2b – 1860)	Other Woodlands (Roy)	Native broadleaved woodland	Total classified woodland area
Small Woodlands	-	0.48 ha	-	0.18 ha	-	0.73 ha	1.39 ha

* - Rounding errors can occur

1.6 Woodland Removal Impact

- 1.6.1 Woodland removal area calculations are approximate and have been rounded up to reflect the worst case scenario for removal. Woodland felling will be reduced as much as possible through mitigation.

Table 2: Woodland Removal for Infrastructure

Item	Woodland Type	Area (ha)
Infrastructure felling	Mixed Broadleaves	7.28 ha
	Mixed Woodland	0.86 ha
	Native Mixed Woodland	0.50 ha
	Conifer	0.31 ha
Scrub/regen clearance	Scrub/regen	1.63 ha

Table 3: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Mixed woodland	8.94 ha

Table 4: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	8.94 ha
Total Compensatory Planting Area	8.94 ha
Total Net Loss of Woodland Area	0.00 ha

Table 5: Woodland Removal for Management Felling

Item	Woodland Type	Area (ha)
Management Felling	Mixed Broadleaves	0.33 ha
Replanting/Restocking	Mixed Broadleaves	0.33 ha
Net Loss of Woodland Area		0.00 ha
<i>Note: Felling approval is via Scottish Forestry Felling Licence application process or Long-Term Forest Plan application or amendment process.</i>		

1.7 Compensatory Planting

- 1.7.1 Compensatory planting to achieve the area quantity (hectares) of woodland removal, referenced above will be provided for the OHL and access track OC area and will be in accordance with the Scottish Government's Policy on Control of Woodland Removal of no net loss of woodland.
- 1.7.2 Compensatory planting will be detailed within **Volume 5, Appendix 8.1: Compensatory Planting Management Strategy**.
- 1.7.3 Areas of tree felling required to facilitate construction (where necessary) outside of the OC, temporary access tracks, holding out positions and EPZ (Equi-potential zones) and areas felled to a windfirm boundary will be replanted on site. Replanting of these sites will follow the conditions set out in the Scottish Forestry approved felling permission (where required) and will be the responsibility of the landowner.