

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

**Appendix 12.1.22: Woodland Report Parcel 13792
Englishton Muir**



APPENDIX 12.1.22: Woodland Report Parcel 13792, Englishton Muir

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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 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 effects of the Proposed Development on Woodland, Parcel 13792, Englishton Muir. 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 12.1.22a: Parcel 13792 Location Map**. The woodlands are situated within the Aird Forest complex approximately 5.8 km southwest of Inverness, within the Highland Council region (NH 597600 418092).
- 2.1.2 The woodlands at Englishton Muir, mainly consist of mixed commercial conifer 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

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](#)

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 The forest has a good road network which can be upgraded to facilitate harvesting and haulage. The first 1000 m of forest road from the forest entrance are in good condition. The latter 1000 m require work to facilitate operations. Tree felling and timber extraction will be able to utilise these existing tracks, prior to any construction activity. Subsequently these roads can serve as the main arterial construction route. The council road leading from the A862 to the forest crosses a railway line with potential to impact haulage.
- 3.1.4 A resilient OC of 90 m in width is required throughout the commercial conifer woodland within Woodland Parcel 13792 taking into account the requirements of the conductor blowout assessment. The OC is illustrated in **Figure 12.1.22b: Parcel 13792 Proposed Felling Requirement**.

3.2 Access Track Route Design

- 3.2.1 The tracks associated with this section of the OHL make use of existing infrastructure, are within the OC or within proposed management felling.

4 Woodland Characteristics

4.1 Woodland Composition and Site Conditions

- 4.1.1 The woodland parcel 13792 was surveyed in November 2024. The woodlands mainly consist of middle-aged commercial conifer plantation with mature Scots pine (SP) in the south of the forest plantation. The SP has been well thinned and has good form. Previously felled areas are regenerating with Sitka spruce (SS). The proposed towers are found in the mature SP bordering on elements of the younger non-native plantations. In the vicinity of BC5-12 an area of Norway spruce (NS) can be found.
- 4.1.2 This section of Proposed OHL Alignment is moderately exposed with a maximum Detailed Aspect Method of Scoring (DAMS) of 15³.
- 4.1.3 The National Soil Map of Scotland⁴ indicates the dominant soil type within the site are humus-iron podsol soils.

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

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.

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

- 4.1.4 The southern area of the forest plantation consists of a mixture of soils with better drained podzols and ironpans on the knolls and peaty gleys and peats in the flatter lower areas.
- 4.1.5 The Ecological Site Classification (ESC)⁵ identifies the site as having a cool, moderately exposed and wet climate. The soils have a slightly dry moisture status and very poor nutrient status.
- 4.1.6 The area has a long history of forest cover demonstrated by the Long Established Plantation Origin (LEPO) classification in the Ancient Woodland Inventory (AWI).
- 4.1.7 No current forest management plans or felling permissions apply to the area coinciding with the OC.
- 4.1.8 No environmental designations impact this parcel.
- 4.1.9 The landscape is characterised by the rocky upland plateau of Inverness. Landform consists of undulating hills.
- 4.1.10 The proposed section of OHL consists of a section of OC between towers BC5-11 to BC5-13.
- 4.1.11 The closest public road suitable for haulage of timber within the ownership is the U1560, Englishton Muir Road, which leads to the A862. The U1560 is classified as a Consultation Route⁶ by the Timber Transport Forum⁷.
- 4.1.12 Considering the volume, species, quality and location, felling using harvester / forwarder combinations is recommended.

4.2 Photo Record – Operational Corridor Assessment

- 4.2.1 The following photographs provide a visual record of key locations along the
- 4.2.2 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.

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

⁶ 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)

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

Photo 1: Mature, well-thinned Scots pine stand (NH 597941 418381, looking southeast)



Photo 2: Sitka spruce regeneration on peaty gleys (NH 599731 417580, looking southwest)



Photo 3: Potential windfirm edges in Scots pine (NH 598179 418287, looking west)



Photo 4: Open grown Scots pine in the eastern section of the ownership (NH 601361 417446, looking northeast)



5 Windblow Risk

- 5.1.1 There is a medium risk of windblow in this forest plantation. The maximum DAMS, a measure of exposure, is 15. This means the site is moderately exposed. The mature nature of the Scots pine and the limited rooting due to ironpans and gleys further reduce stability.
- 5.1.2 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 (windthrow). The Woodland Report identifies further areas of felling to a windfirm edge, defined as 'Management Felling' (categorised as an indirect secondary impact). 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) for the implementation of the works required.

6 Woodland Management Impact

- 6.1.1 Considering the current land use, it is expected the line will impact the forest management within and surrounding the OC. Given the age and height of the crop felling will likely not lead to a large loss in income but it will constrain forest management going forward as the line will impact the felling sequence. The OC will furthermore reduce the area of productive forestry.
- 6.1.2 In the long-term impact on forest management will be low as there is enough forest on either side of the proposed line to provide workable management units.
- 6.1.3 The infrastructure built for this section of the OHL could provide a minor benefit to the landowner for future forest management as it could provide an improvement to the existing infrastructure. As part of construction works, dedicated crossing points and long-term access opportunities should be discussed with the landowner(s).
- 6.1.4 The OHL 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 Forestry Industry Safety Accord FISA 804 "Electricity at Work: Forestry"⁸).
- 6.1.5 The total loss of Native Broadleaved woodland resulting from the proposed alignment is 0.00 hectares (ha).

7 Mitigation Opportunities

7.1 Woodland Mitigation Measures

- 7.1.1 To mitigate the landscape impact on this section of the Proposed OHL Alignment the 'Landscape Replanting Proposals' as set out in the Landscape chapter will be followed as demonstrated in **Figure 12.1.22c: Parcel 13792 Proposed Planting Areas**.
- 7.1.2 A thin belt of trees is proposed for removal on the southern side of the existing track. Retention of these trees should be considered to further reduce likelihood of windblow.

7.2 Restructuring

- 7.2.1 The wider plantation within the ownership consists of a variety of age classes. The Proposed OHL Alignment will also traverse several age classes and species and comprises a small part of the wider block. Impact on structure will therefore be limited.

⁸ Forest Industry Safety Accord (2020), FISA 804 Electricity at Work: Forestry. Available at: <https://ukfisa.com/Safety/Safety-Guides/fisa-804>

- 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. In the long-term this might benefit forest structure.

7.3 Restocking

- 7.3.1 In case of management felling taking place there will be a restock obligation on the landowner.
- 7.3.2 As set out in the Landscape chapter under the 'Landscape Replanting Proposals' restocking can 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 12.1.22c: Parcel 13792 Proposed Planting Areas**.

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 BC5-10 to BC5-14. 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

Item	Woodland Type	Area (ha)
OC felling	Mixed Conifer (90 m)	6.87
Track	Mixed Conifer	0.05
Total area		6.92

Table 8.2: Compensatory Planting

Item	Woodland Type	Area (ha)
Compensatory Planting Area	Mixed Conifer	6.92
Total area		6.92

Table 8.3: Woodland Removal Impact of Infrastructure

Item	Area (ha)
Total Loss of Woodland Area	6.92
Total Compensatory Planting Area	6.92
Total Net Loss of Woodland Area	0.00

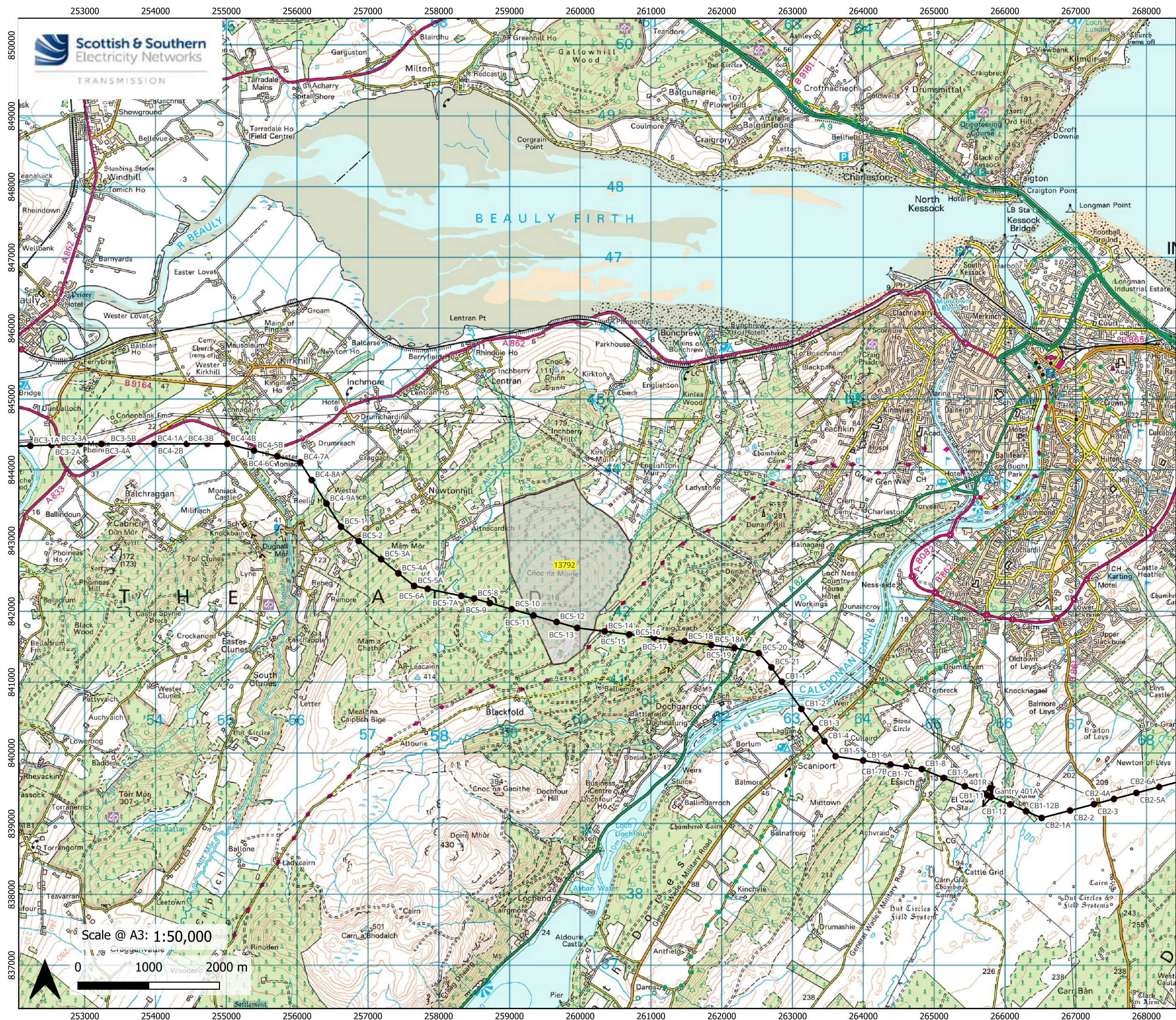
Table 8.4: Woodland removal for Management Felling, outwith OC

Item	Woodland Type	Area (ha)
Management Felling	Mixed Conifer	4.19
Replanting / Restocking Opportunities	Mixed Conifer	4.19
Net Loss of Woodland Area		0.00

9 Compensatory Planting

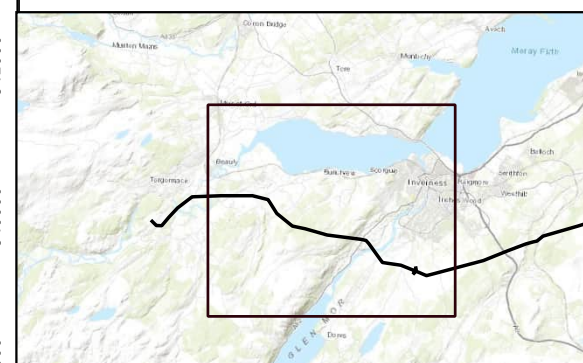
- 9.1.1 Only areas directly impacted by the OC will be included in the compensatory planting total, in accordance with the Control of Woodland Removal Policy (CoWRP)⁹. This policy ensures that woodland loss due to development is mitigated by appropriate replanting or regeneration efforts, but it specifically 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 6.92 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.

⁹ 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

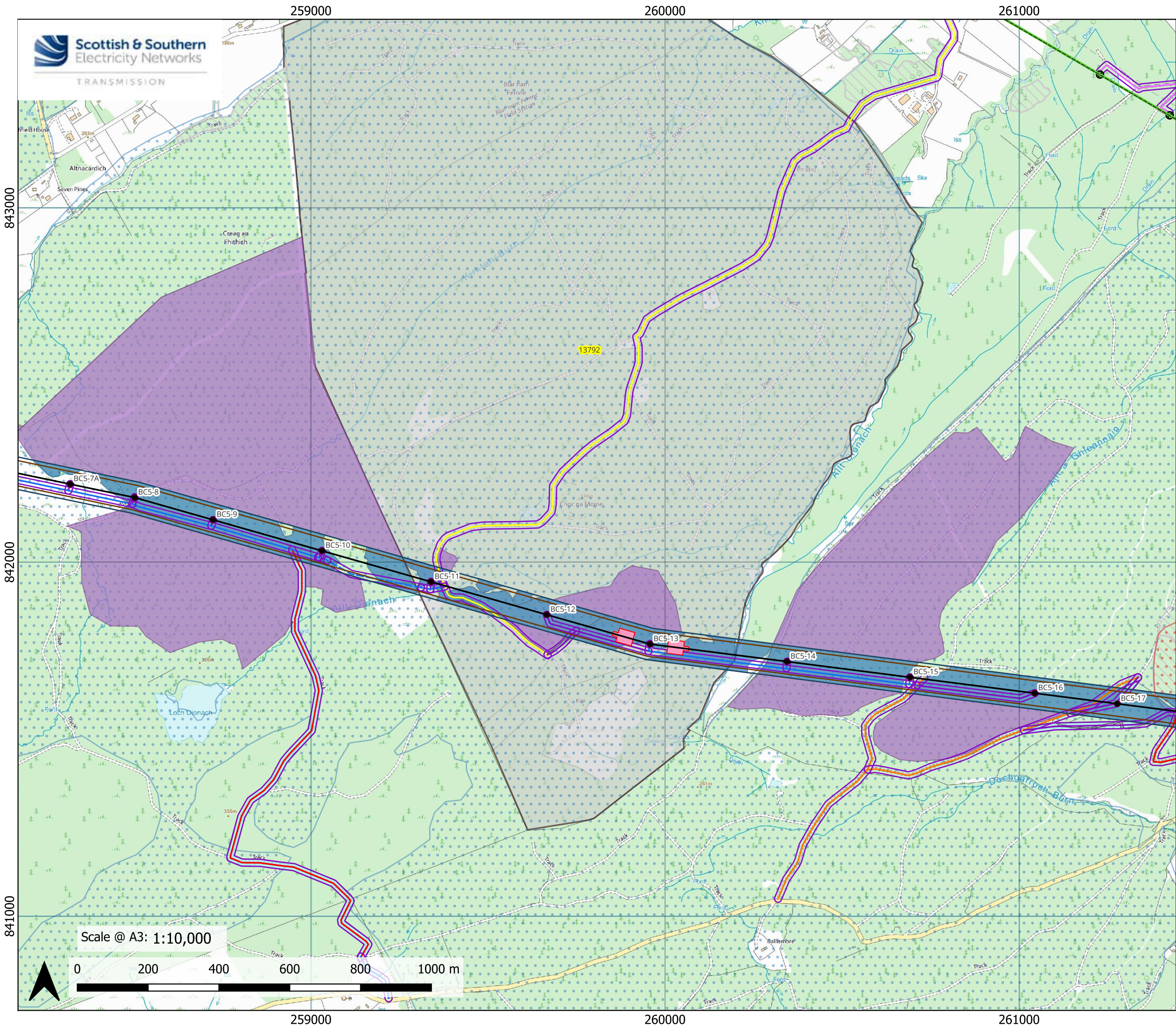


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Project:
Beaulieu to Blackhillock to New Deer to Peterhead 400 kV
OHL Project

Title: **Figure 12.1.22a** Parcel 13792 Location Map

Drawn by: LA



Legend

- Proposed Tower - 400 kV
- Proposed OHL Alignment - 400 kV
- Proposed Conductor Pulling Area (EPZ)
- Tower to be Removed
- OHL to be Removed
- 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
- Existing Access – Upgrade – Very Poor Condition
- Proposed Access – ATV or Temporary Trackway
- Proposed Access – Permanent
- Proposed Access – Permanent Floated
- Proposed Access – Temporary

Proposed Felling Requirements

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

Ancient Woodland Inventory

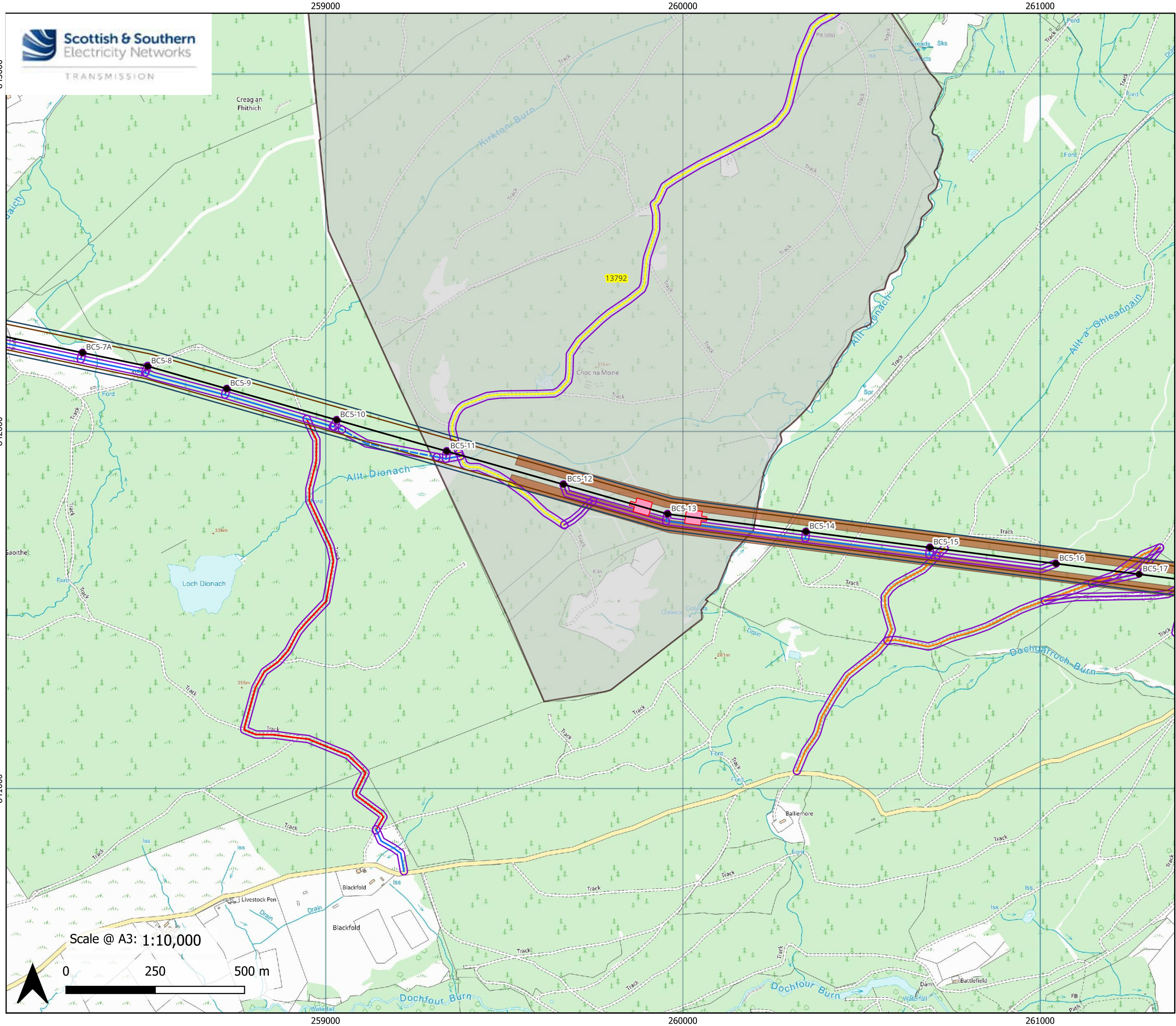
- Ancient (of semi-natural origin)
- Long-Established (of plantation origin)
- Landownership Boundary/Parcel
(Landownership boundary extends beyond map extent – relevant area shown)

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Title: **Figure 12.1.22b** Parcel 13792 Proposed Felling Requirements

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
- Existing Access – Upgrade – Very Poor Condition
- Proposed Access – Permanent
- Proposed Access – Permanent Floated
- Proposed Access – Temporary
- Landownership Boundary/Parcel
(Landownership boundary extends beyond map extent – relevant area shown)
- Forest Edge Planting Locations

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Project:
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Title:
Figure 12.1.22c Parcel 13792 Proposed Planting Areas

Drawn by: LA