Lorg Wind Farm Grid Connection

Environmental Impact Assessment Report

Chapter 6: Forestry

November 25

Land & Planning

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6.1 Introduction

6.1.1 WSP UK Ltd has been instructed by The Applicant to provide a forestry assessment for overhead line (OHL) proposals. The Proposed Development comprises the construction and operation of a new 17.5 km 132 kV wood pole (Trident) OHL between the proposed Lorg Wind Farm and the proposed Holm Hill Substation (both of which are being consented separately and are not assessed as part of this Environmental Impact Assessment Report (EIAR)). The proposed OHL comprises 201 poles, reaching a maximum height of 15.1 m.

6.1.2 This Chapter presents the findings of the assessment of the likely significant environmental effects of the Proposed Development on the existing forestry resource.

6.2 Legislation, Policy and Guidance

6.2.1 This report has been compiled in consideration of the following legislation, policy and guidance:

- Forestry and Land Management (Scotland) Act 2018[1];
- The Felling (Scotland) Regulations 2019[2];
- The Felling (Exemptions) (Scotland) Regulations 2019[3];
- Dumfries and Galloway Council, Dumfries and Galloway Forestry and Woodland Strategy (adopted 1st December 2014)[4];
- Scottish Government's policy on control of woodland removal: implementation guidance (published February 2019)[5];
- Scottish Government's Policy on Control of Woodland Removal (published 2009)[6];
- National Planning Policy Framework 4 (NPF4) (published 13th February 2023, last updated 9th October 2024)[7];
- UK Forestry Standard (2017) (published 21st December 2017, last updates 6th March 2025)[8]; and
- Scotland's Forestry Strategy 2019-2029 (published 5th February 2019)[9].

6.2.2 The NPF4 Policy 6 states that development proposals involving woodland removal will only be supported where they will achieve significant and clearly defined additional public benefits in accordance with the Scottish Government's policy on control of woodland removal, and, where woodland is removed, compensatory planting will most likely be expected to be delivered. Accordingly, removal of woodland will require compensatory planting.

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[1] Scottish Government (2018). Forestry and Land Management (Scotland) Act 2018. Available at: https://www.legislation.gov.uk/asp/2018/8/enacted

[2] Scottish Government (2019). The Felling (Scotland) Regulations 2019. Available at: https://www.legislation.gov.uk/ssi/2019/49/made

[3] Scottish Government (2019). The Forestry (Exemptions) (Scotland) Regulations 2019. Available at: https://www.legislation.gov.uk/ssi/2019/126

[4] Dumfried and Galloway (2014). Forestry and Woodland Strategy. Available at: https://www.dumfriesandgalloway.gov.uk/sites/default/files/2024-08/Forestry_and_Woodland_Strategy_April_FINAL1.pdf

[5] Scottish Government (2019). Scottish Government's policy on control of woodland removal: implementation guidance. Available at: https://www.forestry.gov.scot/publications/scottish-governments-policy-control-woodland-removal-implementation-guidance

[6] Scottish Government (2009). Scottish Government's Policy on Control of Woodland Removal Available at: https://www.forestry.gov.scot/sites/default/files/pub-documents/PDF_Policy_Felling_Trees_SG_Policy_on_Control_of_Woodland_Removal_022009.pdf

[7] Scottish Government (2025). National Planning Policy Framework 4 (NPF4). Available at: https://www.gov.scot/publications/national-planning-framework-4/

[8] UK Government (2025). The UK Forestry Standard 5th edition. Available at: https://www.gov.uk/government/publications/the-uk-forestry-standard

[9] Scottish Forestry (2019). •Scotland's Forestry Strategy 2019-2029. Available at: https://www.forestry.gov.scot/publications/scotlands-forestry-strategy-2019-2029

6.2.3 The Proposed Development has aimed to minimise the amount of permanent felling through iterative design development as described in **Chapter 2: Route Selection and Alternatives.** However, the Proposed Development still involves the permanent removal of woodland. As per the Scottish Government's policy on Control of Woodland Removal, woodland removal with compensatory planting is most likely to be considered appropriate where it would contribute significantly to one or more of the following:

- helping Scotland mitigate and adapt to climate change;
- enhancing sustainable economic growth or rural/community development;
- supporting Scotland as a tourist destination;
- encouraging recreational activities and public enjoyment of the outdoor environment;
- reducing natural threats to forests or other land; or
- increasing the social, economic or environmental quality of Scotland's woodland cover.

6.2.4 The Proposed Development would meet the acceptability criteria set out in the above-noted policy for woodland removal, as the change of land use would contribute significantly to "*helping Scotland mitigate and to adapt to climate change*" by providing infrastructure essential to connect electricity generated by renewable energy sources to the grid, which would contribute to significantly reducing net greenhouse gas emissions. The Proposed Development would also meet the criteria, as compensatory planting is proposed.

6.3 Consultation

6.3.1 Consultation responses relevant to this forestry assessment are provided in **Table 6.1** below. Extensive consultation has been undertaken as part of the consideration of route options. This included a meeting with Scotland Natural Heritage (SNH) in March 2017 and a public consultation on the Preferred Route in April 2017. Following modifications resulting from feedback on the Preferred Route, further consultation on the Proposed Route was undertaken in April 2024.

A complete record of consultation responses to date has been included within **Appendix 4:1 – Scoping Comments and Responses**. Those included within **Table 6.1** below relate specifically to the identified forestry receptors and are therefore of relevance to this assessment. Further details of the consultation undertaken for the Proposed Development are outlined in the Consultation Report prepared to support the Section 37 submission and **Appendix 4:1 – Scoping Comments and Responses.**

Table 6.1: Summary of Consultee Responses

Consultee	Response	Action
LFI Silva Investments Proposed Route Consultation Response (June 2024)	Consultation forwarded by The Applicant confirmed in June 2024 that there is no managed forestry within the route of the proposed line due to the depth of peat. An 'as planted' plan was provided for a nearby managed plantation outside of the Study Area.	No action required.
The Church Commissioners Proposed Route Consultation Response (May 2024)	Consultation forwarded by The Applicant in May 2024 confirmed that the forest management plan for Smittons Forest had expired. However, the superseded forest plan was provided.	Assessment has taken cognisance of the superseded plan.
Forestry Commission Scotland (Forestry and Land Scotland)	It remains disappointing that the powerline round through areas of woodland which both line resilience and impact on woodland is less than ideal. Our scoping opinion response will remain	This Forestry Chapter has been produced in accordance with the 2019 and 2022 Scoping Opinion Response.

Consultee	Response	Action
Scoping Update (May 2022)	broadly as before in terms of the key concern being the impact on SG policy on the Control of woodland removal, the need to calculate the full area of current woodland lost due to the construction of this windfarm. This should not only include the wayleave itself but any additional resilience corridor and additional woodland removal as a consequence of landscape mitigation.	It includes the calculation of the loss of forestry and in turn the minimum requirement regarding compensatory planting. It takes cognisance of Scottish Government policy on the control of woodland removal. Furthermore, it calculates the area of each forestry coupe that is required to be removed to facilitate the Proposed Development. Recommendations are also made to the forest managers, where applicable, for felling outside of the study area, in order to combat windthrow – although this is not included in the overall felling calculation.
Forestry Commission Scotland (Forestry and Land Scotland) Scoping Opinion Response (April 2019)	Where woodland removal is proposed for development, the relevant Environmental Impact Assessment (EIA) regulations will apply, and the Environmental Impact Assessment Report (EIAR) should justify and provide evidence for the need for woodland removal and the associated mitigation measures. The first consideration for the applicant should be whether the underlying purpose of the proposal can reasonably be met without resorting to woodland removal. Design approaches that reduce the scale of felling required to facilitate the development must be considered, and integration of the development with the existing woodland structure is a key part of the consenting process. Integration of the project into future forest design plans is a key part of the development process. The removal of large areas of woodland will not be supported. When a proposed development or infrastructure requires to go through forestry, consideration should be given to forest design guidelines.	Since Scoping, there have been changes to the route which will reduce the impact on forestry, including moving the route further down slope away from forestry east of the River Ken. The amount of forestry removal required has been reduced through design, but some level of forestry removal is unavoidable. Where forestry removal is required, this would be carried out via agreement between The Applicant and the forestry landowner. Future forest management plans will reflect a change to compartment structure with the new OHL Operational Corridor (OC) incorporated as open ground.
Forestry Commission Scotland (Forestry and Land Scotland) Scoping Opinion Response (April 2019)	The EIAR should include a stand-alone chapter on 'Woodland management and tree felling' (a forest plan) prepared by a suitably qualified professional and supported by existing records, site surveys and aerial photographs. In order to present the relevant information about the forest and to secure compliance with the UK Forestry	This Forestry Chapter assessment includes a desktop study and a walkover survey. To date existing Forest Management Plans have not been made available for review as part of the assessment in the EIAR, and so assumptions

Consultee	Response	Action
	Standard, the applicant should consider the appropriate scope/scale for such plan. In certain cases a forest plan of the proposed development area only is not appropriate. The applicant should consider the whole ownership, or multiple ownerships, or expands the scope of the forest plan so that to present the relevant information about that forest. Details of the proposed mitigation measures must be included in the EIAR, not left to post-consent habitat management plans (or others) to decide and implement.	have been made using Scottish Forestry's Map Viewer and survey data. In the absence of Forest Management Plans, impacts have been assessed against forest landowners and their associated property. Forest plans are the responsibility of the forest managers/landowners, not The Applicant of the Proposed Development. However, where appropriate, recommendations have been made for the forest owners to adopt with their forest plans. Future forest management plans will reflect a change to compartment structure with the new OHL OC incorporated as open ground.
Forestry Commission Scotland (Forestry and Land Scotland) Scoping Opinion Response (April 2019)	The chapter should describe and recognise the social, economic and environmental values of the forest and the woodland habitat and take into account the fact that, once mature, the forest would have been managed into a subsequent rotation, often through a restructuring (re-designing) proposal, according to the UK Forestry Standard, that would have increased the diversity of tree species and the landscape design of the forest. The chapter should describe the baseline conditions of the forest, including its ownership. This will include information on species composition, age class structure, yield class and other relevant crop information. The chapter should describe the changes to the forest structure, the woodland composition and describe the work programme: • the proposed areas of woodland for felling to accommodate the proposed infrastructures, including access roads, tracks, underground pipes and cables and any ancillary structures. Details of the area to be cleared around those structures should also be provided, along with evidence to support the proposed scale and phasing of felling;	This Forestry Chapter describes the current baseline (**Section 6.5**) including species, composition, age, height, diameter, volume, condition, management activities etc. The Chapter describes how the baseline would likely be affected by the Proposed Development including amount of tree removal (**Section 6.7**). A permanent loss of 52.19 ha of woodland will require compensatory planting of suitable types, in a location which will be determined prior to the commencement of works. This Chapter includes a commitment for compensatory planting, at a location which would be determined prior to commencement of the works. Compensatory planting will be undertaken in line with national and local planning policy requirements.

Consultee	Response	Action
	• trees felled must be replanted on-site or compensated for (off-site planting) and these areas must be clearly identified in the plan. On-site replanting must always be considered first. The replanting operations must be appropriately described, including changes to the species composition, age class structure, timber production and traffic movements. Tree/shrub species must be suited to the site and the objectives of management; • areas of open ground in the forest that are designed for biodiversity or landscape enhancement or for recreation opportunities should not be considered for on-site replanting (to compensate for woodland removal in other parts of the forest).	Ongoing management of forestry areas remains the responsibility of the landowners and their forest managers.
Forestry Commission Scotland (Forestry and Land Scotland) Scoping Opinion Response (April 2019)	The applicant should consider the potential cumulative impact of existing and the Proposed Development on the forest resource in respect to the local and regional context. In particular consideration must be given to the implication of felling operations on such things as habitat connectivity, biodiversity, water management, landscape impact, impact on timber transport network and forestry policies included in the local and regional Forestry and Woodland Strategies and local development plans.	**Chapter 6: Forestry** of the EIAR considers the cumulative impact on the forest in relation to the Proposed Development and other developments.
Forestry Commission Scotland (Forestry and Land Scotland) Scoping Opinion Response (April 2019)	A long term forest plan should be provided as part of the EIAR (as a technical appendix for context) to give a strategic vision to deliver environmental and social benefits through sustainable forest management and describes the major forest operations over a 20 years period.	A long-term forest plan is the responsibility of the forest manager and not The Applicant for the Proposed Development. Existing Forest Plans have not been made available for review, however **Chapter 6: Forestry** details recommendations for forest management in respect to the Proposed Development.
Forestry Commission Scotland (Forestry and Land Scotland)	The UK Forestry Standard is the Government's reference standard for sustainable forest management in the UK and provides a basis for regulation and monitoring. The Scottish Government expects all forestry plans and operations in Scotland to comply with the standards. Both felling operations and on and	This Forestry Chapter includes the calculation of the loss of forestry and in turn the minimum requirement regarding compensatory planting. It takes cognisance of Scottish Government policy on the control

Consultee	Response	Action
Scoping Opinion Response (April 2019)	off-site compensatory planting must be carried out in accordance to good forestry practice- the EIAR must clearly state that the project will be developed and implemented in accordance with the standard. A key component of this is to ensure that even-age woodlands are progressively restructured in a sustainable manner: felling coupes should be phased to meet adjacency requirements and their size should be of a scale which is appropriate in the context of the surrounding woodland environment.	of woodland removal. Furthermore, it calculates the area of each forestry coupe that is required to be removed to facilitate the Proposed Development. Recommendations are also made to the forest managers, where applicable, for felling outside of the Operational Corridor, in order to combat windthrow – although this is not included in the overall felling calculation.
Forestry Commission Scotland (Routing Consultation 2017)	The response queried why Lorg could not be connected to Route C to the north, it would reduce environmental impact and cost. Route passes through large areas of commercial forestry which will have a significant effect both on hectarage of forestry loss and on forestry operations, including health and safety implications. Acts against the achievement of the Scottish Governments wider objectives around the expansion of Woodland cover in Scotland. It also presents landscaping issues which can result in further woodland losses to mitigate them. C4 will have huge impacts on commercial forestry (C3 would have none). B4 is the worst alignment from a forestry perspective through this section. Strongly urge SPEN to liaise at an early stage with FCS and Woodland owners and managers to review and agree the best detailed alignments and associated infrastructure required. Such consideration should consider existing woodland boundaries and windfirm edges, existing road infrastructure and existing long term forest plans for the areas in question. If such an approach is adopted, some of the potential impacts of this project could be significantly reduced or mitigated. FCS would be happy to support such engagement.	All routes through forestry have been moved to both reduce the potential effects on area of forestry loss and impact on forestry operations. Landowners have been consulted and their feedback taken on board. Further consultations will take place during the alignment stage.

6.4 Assessment Methodology and Significance Criteria

6.4.1 This Chapter considers the significance of likely predicted effects of the Proposed Development on forestry. This includes an assessment of the sensitivity of the forestry located along the route of the Proposed Development and an assessment of the likely impacts that would arise from the Proposed Development.

6.4.2 The assessment is based on the description of the Proposed Development that is provided in **Chapter 3: Proposed Development**. The Proposed Development design is displayed in **Figure 3.1 Proposed Development**, and has been used to inform proposed tree removal, as displayed in **Figure 6.1 Forestry Removal**.

6.4.3 This Chapter reports on the assessment of the effects associated with the Proposed Development areas only and does not address the overall Forest Management Plans, including management intentions of the various landowners. Any felling undertaken beyond the Proposed Development Study Area would be solely under the control of the relevant landowner (and not The Applicant), and consequently, the assessment is limited to consideration of the effects of the Proposed Development on the current composition at the time of writing of forestry in the Study Area only.

Extent of the Study Area

6.4.4 The Study Area includes the Operational Corridor and all woodland potentially directly and indirectly affected by the Proposed Development.

6.4.5 To address direct effects, The Applicant has the right as Network Operator (NO) to remove woodland for new OHLs, resilience, maintenance, or protection of electrical plant as per The Electricity Act 1989[10]. NOs invest significantly in proactive programmes to manage trees (and other vegetation) in proximity to their infrastructure, generally to discharge their responsibilities under the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002. Proximity Zone 1 comprises the area within which additional controls for felling apply to ensure that this can be done safely in the vicinity of the OHL. This applies to tree felling and is defined as 2 tree lengths. Proximity Zone 2 applies to tree pruning and dismantling and is defined as 9 m from lines up to 66 kV, but 15 m from lines above 66 kV.

6.4.6 Taken from the Energy Networks Association's publication 'Engineering Technical Report 136: Vegetation Management Near Electrical Equipment – Principles Of Good Practice'[11], the following quotation is a useful summary:

> ***Electricity Safety, Quality and Continuity Regulations (ESQCR 2002) as amended:*** *"NOs have a duty under the Electricity Safety, Quality and Continuity Regulations (as amended) to keep sufficient distance between vegetation and overhead lines both to safeguard public safety and to ensure continuity of supply. This should help the network to be more resilient to the effect of severe weather. It may result in more extensive tree cutting to be carried out than before, with trees that pose a high risk being removed (Refer to DTI statement – Management of vegetation near overhead power lines)"*

6.4.7 The OC width that has been assessed and identified for the safe build and energisation of the Proposed Development through the areas of woodland is 60 m (30 m either side of the OHL centreline). The OC is increased in the Corlea area to 70 m (35 m either side of the OHL centreline for one section and 40 m to the west and 30 m to the east at another). The OC has taken cognisance of the current tree height within the Study Area and potential growth within a five-year maintenance period. The OC is shown in **Figure 6.1 Forestry Removal**.

6.4.8 In areas where the indirect effect of windthrow is considered possible, the Study Area has been increased up to the nearest suitable windfirm edge.

Method of Baseline Data Collation

6.4.9 A desk study was undertaken in May 2024 to identify forestry constraints within the Study Area.

6.4.10 The property boundary information of each landholding in the Study Area was supplied for review. A desk-based appraisal of Ordnance Survey (OS) mapping, aerial photography and review of web-based data provided by Scottish Forestry identified the existing woodland cover within the Study Area. The Scottish Forestry map viewer was used to identify grants, felling permissions and other policy constraints.

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[10] UK Government (1989). Electricity Act 1989 (as amended). Available online at: https://www.legislation.gov.uk/ukpga/1989/29/introduction?view=extent

[11] Energy Networks Association (2020). *Engineering Technical Report 136: Vegetation Management Near Electrical Equipment – Principles Of Good Practice.*

6.4.11 A forestry walkover survey was undertaken in May 2024 to assess woodland characteristics. The survey recorded data including species, height, stem diameter, age, spacing, forest condition, windthrow, and management activities.

Assessment Methodology

6.4.12 This Chapter identifies the impacts on all areas of forestry which may be affected by the Proposed Development and assesses the impact of the Proposed Development on forestry operations, management and windthrow. There is no standardised approach to assessing impacts on forestry and as such, professional judgement will be used in combination with relevant industry guidance such as the UK Forestry Strategy (UKFS), Scotland's Forestry Strategy 2019 to 2029 and the Scottish Government's Control of Woodland Removal Policy. These documents do not provide specific guidance on assigning sensitivity and magnitude criteria; therefore, the methodology for assessing the significance of effects has been developed using professional judgement informed by relevant industry guidance and approaches commonly applied in other environmental assessments.

Significance Criteria

6.4.13 A number of factors may be considered when assessing sensitivity, including the characteristics summarised in **Table 6.2** below. A feature may display a combination of characteristics from different sensitivity categories, and professional judgement has been used to determine a feature's sensitivity.

Table 6.2: Criteria for Sensitivity of Receptors on Forestry

Category	Description
High	• woodlands protected by ecological designation, e.g. Site of Special Scientific Interest; • woodlands recorded on the Ancient Woodland Inventory; • woodland recorded as Caledonian Pinewood Inventory, where compliance with the qualifying features has been verified on-site; and • particularly rare or distinctive in a national context.
Medium	• woodlands of particular conservation, historical, commemorative or other value; • forests or woodlands that are a particularly good example of their type and are likely to include diverse, structured, semi-natural, and undisturbed ecosystems; • forests or woodlands that exhibit high public usage; • forests or woodlands with high commercial value or potential; • any woodland identified for protection within the Local Planning Authority's Forestry and Woodland Strategy; and • rare or distinctive in a local or regional context.
Low	• forests or woodlands with some high-quality characteristics but which might be disturbed or damaged e.g. from browsing pressure, windthrow or poor management; • forest or woodlands lacking special characteristics to be considered high value; • forests or woodlands with limited public usage; and • forests or woodland with limited commercial value or potential.
Negligible	• woodlands in poor condition, poorly adapted to soils and/or climate, or significantly affected by pests, diseases or other abiotic factors; and • woodlands impacted by substantial development and, as such, characterised by change.

6.4.14 The complex, multi-faceted nature of environmental services and products means there is no standardised approach to assessing the impacts. As such, professional judgement is used in consideration of the potential impact of descriptions, as shown in **Table 6.3** below, to determine the magnitude of impact on features. Impacts are adverse and permanent unless otherwise stated.

Table 6.3: Criteria for Magnitude of Impacts on Forestry

Category	Description
High	A noticeable change to the tree population over a wide area or an intensive change over a limited area.
Medium	Small changes to the tree population over a wide area or noticeable changes over a limited area.
Low	Very small changes to the tree population over a wide area or small changes over a limited area.
Negligible	No discernible change to the tree population.

6.4.15 The overall significance of effects was determined, taking into account sensitivity and magnitude criteria as set out in **Table 6.4** below. For this assessment, any impact of Moderate and above is considered significant.

Table 6.4: Significance of Effects Criteria

		Sensitivity of Receptor/Receiving Environment to Change/Effect			
		High	**Medium**	**Low**	**Negligible**
Magnitude of Change/Effect	**High**	**Major**	**Major**	**Moderate**	Negligible
	Medium	**Major**	**Moderate**	Minor	Negligible
	Low	**Moderate**	Minor	Minor	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

Limitations and Assumptions

6.4.16 Topographical data were not available at the time of surveying, and as such, the position of forestry has been estimated using aerial photography and on-site Global Positioning System (GPS). The position and extent of these features are therefore approximate.

6.4.17 Assessments of statutory and non-statutory constraints have been carried out using publicly accessible third-party information.

6.4.18 A windthrow assessment has been provided in the Chapter for forestry potentially affected by the Proposed Development. Predicting the overturn or stem snap associated with wind is very complex and includes consideration of a number of natural factors (such as wind speed, direction and pressure, species, soil composition, hydrology, root strength and spread, topography, etc.) and anthropogenic factors (such as silvicultural management processes and root disturbance). Windthrow can occur on catastrophic scales through storm events where even the most windfirm trees can be damaged, and although unpredictable, they are not common occurrences. Localised windthrow pockets, which enlarge slowly over time, are endemic in the UK and are particularly prevalent in softwood forests, and are typically hard to predict due to their small-scale nature. Professional judgement, in combination with Forest Research's windthrow risk software tool ForestGALES, has been used to assess where windthrow may be of higher risk, but it is noted that it may be possible in any forest at any time, and the findings reported here should therefore be considered indicative.

6.4.19 In areas of steep terrain, windthrow and dense vegetation inhibiting access, tree measurements were estimated from a distance.

6.4.20 Impacts on commercial forestry operations have been assessed at a high level. However, timber volume and value, based on mensuration surveys, have not been provided. Where deemed appropriate, this detailed assessment should be carried out by the forest manager to determine suitable compensation.

6.4.21 The Proposed Development design includes both existing and proposed routes of access. Where possible, these have been designed to take advantage of existing forestry tracks to minimise forest removal and modifications to drainage systems. Where proposed access routes are required through areas of forestry, tree removal would be required, and this has been taken into account within our assessment.

6.4.22 Active Forest Management Plans (FMP) were not provided. Information such as detailed forest characteristics has therefore been estimated during the Site walkover. Furthermore, in the absence of FMP, forest objectives such as areas of planned felling and restocking areas are unknown, and so assumptions have been made within the impact assessment. In the absence of FMP, impacts have been assessed against all known landowners with forestry on their property within the Study Area. The landowners with forestry are listed below with their property names:

- A – The Church Commissioners of England – Smitton Forest;
- B – Czernin, Kinsky – Auchrae Forest;
- C – FIM Ltd – Corlae Forest; and
- D – Vincent – Daltallochan Hill.

6.5 Baseline Conditions

General Site Description

6.5.1 The Study Area is located between Carsphairn and Lorg Wind Farm, Dumfries and Galloway. Dumfries and Galloway is the third largest region in Scotland. Its land area covers approximately 6,400 square kilometres, of which approximately 28% of land coverage is forestry and woodland. Tree cover is dominated by conifers, with less than 10% being broad leafed varieties, a lower percentage of which are native species, and a lower still percentage are ancient semi-natural woodlands, which are generally regarded as the most valuable for biodiversity[12].

6.5.2 Forestry is located mostly within the eastern side of the Study Area and is prominently located on either side of the Water of Ken and Craigengillan Burn. Land adjacent to forestry is predominantly rural pasture or areas of open moorland.

[12] Dumfried and Galloway (2014). Forestry and Woodland Strategy. Available at: https://www.dumfriesandgalloway.gov.uk/sites/default/files/2024-08/Forestry_and_Woodland_Strategy_April_FINAL1.pdf

Desk Study Findings

6.5.3 There is no ancient woodland recorded on the Ancient Woodland (Scotland) Inventory within the Study Area.

6.5.4 There are four areas recorded on the Native Woodland Survey of Scotland inventory located near the middle of the Study Area, east of the Water of Ken. Two of these are wet woodland, and the other two upland birchwood and are all generally young in age class.

6.5.5 There are four parcels of Woodland Improvement Grant – Restructuring Regeneration for both conifer and broadleaf located at two areas near Craigengillan Burn and Holm of Dalquhairn.

6.5.6 The vast majority of forestry is currently in a Scottish Forestry Grant Scheme (SFGS) under an approved Forest Plan. There are numerous areas of historically approved clearfelling and thinning recorded on the Forestry Map Viewer under an expired Resource Development and Conservation (RDC) Forest Plan. The majority of remaining forestry is highlighted on the SFGS Forest Plan as clearfell for either within 1-5 years or 6-10 years. No areas of Low Impact Silviculture System (LISS) or Continuous Cover Forestry (CCF) are located within the Study Area, meaning forestry fluctuates within the landscape under clearfell and restock silvicultural systems.

6.5.7 Three areas of Woodland Grant Scheme (WGS) Approved for Restocking, and two areas of Approved for New Planting are located to the north of the Study Area near Craigythorn.

6.5.8 It can be observed from aerial photography that there are eight distinct small to medium sized coupes of clearfelling within the Study Area.

6.5.9 There is a continuous area on either side of the Water of Ken recorded as Target Woodlands for Riparian Benefits.

6.5.10 As mentioned in **Table 6.1** above, the superseded Forest Management Plan for Smittons Forest was provided for review. The plan is associated with survey compartment W1. It is evident that other unsurveyed compartments of Smittons Forest have been managed as per the plan; however, the forest maps show compartment W1 to be felled in Phase 2 and restocked with mixed broadleaves, which the survey confirmed had not yet occurred. According to Map 3, and confirmed by the survey, this crop is ready to be harvested.

6.5.11 Aerial imagery indicates that large areas of forestry in the Study Area are under active management.

6.5.12 Environmental values of forestry are considered in **Chapter 8: Ecology and Ornithology**.

Walkover Survey Findings

6.5.13 The Study Area comprises large areas of commercial forestry plantation. The walkover survey confirmed the majority of these are stocked with Sitka spruce under active management, with clearfell and restocking evident as the primary silvicultural system, transforming plantations into a range of diverse age classes. **Table 6.5** summarises the walkover survey findings for selected forestry compartments in the Study Area.

Table 6.5: Walkover survey findings

Forestry Compartment	Property	Observations	Area (ha)
W1	Smittons Forest	Sitka spruce, 30 m height, 39 cm diameter average, mature, average 3.5 m spacing, multiple large areas of windthrow throughout forestry and numerous hung-up trees.	3.51
W2	Auchrae Forest	Sitka spruce, 12 m height, 16 cm diameter average, early mature, average 2 m spacing, occasional overturned tree and very small pocket of windthrow to south of coupe.	20.44
W3	Auchrae Forest	Sitka spruce, 14 m height, 18 cm diameter average, early mature, average 2 m spacing, windfirm.	2.05

Forestry Compartment	Property	Observations	Area (ha)
W4	Auchrae Forest	Sitka spruce, 7 m height, 8 cm diameter average, semi mature, average 2 m spacing, windfirm.	0.49
W5	Auchrae Forest	Sitka spruce, 14 m height, 16 cm diameter average, early mature, average 2 m spacing, windfirm.	26.04
W6	Corlae Forest	Sitka spruce, 16 m height, 19 cm diameter average, early mature, average 2.5 m spacing, windfirm.	43.31
W7	Corlae Forest	Sitka spruce, 16 m height, 20 cm diameter average, average 2.5 m spacing, windfirm.	9.16
W8	Corlae Forest	Sitka spruce, 21 m height, 26 cm diameter average, average 2.5 m spacing, windfirm.	11.93

6.5.14 At the time of the survey, Daltallochan Forest was not scoped into the forestry assessment. Information relating to Daltallochan Forest was therefore provided by The Applicant in GIS format, based on information provided by the landowner. This information is considered sufficient to inform this forestry assessment alongside the survey data.

6.5.15 Given the composition of forestry, and assumed management objectives, the following sensitivities are assigned to land parcels:

- A – The Church Commissioners of England - Smittons Forest, Low sensitivity;
- B – Czernin, Kinsky – Auchrae Forest, Low sensitivity;
- C – FIM Ltd – Corlae Forest, Low sensitivity; and
- D – Vincent – Daltallochan Hill, Low sensitivity.

6.5.16 The four properties have been assigned low sensitivity due to a combination of factors, including a lack of special characteristics, limited public usage, existing pressures such as windthrow, and limited commercial value.

Future Baseline

6.5.17 Under a ‘do nothing’ scenario, it has been assumed that coniferous plantations will continue to be managed principally in accordance with commercial objectives and the ‘normal’ cycle of forest management, including their felling and replanting with similar species. It is not considered likely that there will be a net reduction in the area of forest as a result of this scenario overall, although there will clearly be local changes.

6.6 Issues Scoped Out

6.6.1 It is noted that the UKFS identifies seven elements of sustainable forest management, as follows:

- forests and biodiversity;
- forests and climate change;
- forests and historic environment;
- forests and landscape;
- forests and people;
- forests and soil; and
- forests and water.

6.6.2 The potential environmental impacts and likely significant effects associated with these elements are considered within the relevant topic chapters included in this EIAR, rather than in this Forestry Chapter. As no likely significant effects have been identified, the Chapters relevant to Forestry and Climate Change and Forests and People have been scoped out of the assessment.

6.7 Potential Effects

Construction

6.7.1 As stated in **Section 6.4**, the OC assessed is the minimum area required to facilitate safe operation of the OHL.

6.7.2 The Proposed Development has been designed to avoid areas of forestry where possible.

6.7.3 **Table 6.6** shows the permanent felling required to facilitate the construction of the Proposed Development. Forestry removal is visualised in **Figure 6.1 Forestry Removal**.

Table 6.6: Land-take for Operational Corridor in forestry

Forest	Mature crop (ha)	Immature crop (ha)	Total Area of forest loss (ha)
Smittons	0.76	4.05	4.81
Auchrae	4.92	9.88	14.8
Corlae	4.48	6.48	10.96
Daltallochan Hill	-	21.62	21.62
Total	**10.16**	**42.03**	**52.19**

6.7.4 Correspondence was received from the landowner of Corlae forest stating the landowner's desire to fell the whole of compartment W8, in part due to concerns about windthrow. However, only the removals required to facilitate the Proposed Development are assessed in **Table 6.6**. This is because the survey deemed W8 to be windfirm (as shown in **Table 6.5**) and removal of the western lower slope edge was not considered to significantly increase windthrow risk.

6.7.5 Areas of mixed deciduous trees are located within the OC and require removal, as shown in **Figure 6.1 Forestry Removal**. These are predominantly semi to early mature self-set trees and are considered to have low potential economic value. Therefore, loss of such trees is not considered to have a material impact on forestry within the Study Area.

6.7.6 Construction access would mostly utilise existing hard standing forestry tracks or would be located within the OC to limit the amount of tree felling.

Operation

Operational Corridor Maintenance

6.7.7 The direct operational effects on forests and woodland in the Study Area would be limited to periodic vegetation management to maintain the OC. Within the OC, following the construction of the Proposed Development, there would be an ongoing need to manage the growth of vegetation to facilitate access for maintenance of the OHL and to maintain the required tree clearance for the safe and resilient operation of the OHL. It is recommended that The Applicant manage trees within the OC.

Windthrow

6.7.8 ForestGALES has provided a Wind Damage Risk Status (WDRS) for each forest, which measures the potential risk of either overturning or stem breakage from the creation of a new exposed brown edge in the forest compartments. For all stands that are felled in part, ForestGALES concluded a low risk of windthrow for the remaining crop trees. This is mostly supported by professional judgement, by which it was observed that the majority of forest compartments were windfirm.

6.7.9 However, W1 has extensive windthrow pockets and any additional opening up of this compartment is considered likely to exacerbate the windthrow. Forestry removal reported in **Table 6.6** considers that required for the OC only; however the forest manager may wish to consider harvesting a wider clearfell coupe at the same time to avoid further windthrow impacts on any remaining standing trees.

Forest Management

6.7.10 The need to remove trees for the installation and maintenance of OHL can disrupt planned forestry operations, including harvesting schedules, thinning cycles, and access routes. This disruption can lead to operational delays and increased costs for forest managers. Coordination with forest managers is essential to minimise these impacts and integrate project activities with ongoing forest management plans.

6.7.11 Harvesting of timber within two tree-length falling distance of the OHLs may require approval and operations using modified harvesting techniques and safe working practices. Working in proximity to OHLs adds complexity to forest operations and may impact harvesting efficiency.

6.7.12 In addition to reducing timber volume, the removal of trees associated with the Proposed Development may have implications for the wider forestry management. For example, it may be deemed appropriate by the forest manager to fell affected compartments at this stage to reduce environmental risks or harvesting costs. Forest plans would need to be updated to account for the presence of OHLs, including potential future maintenance and the impact on forest growth and regeneration.

6.8 Assessment of Likely Significant Effects

Construction Phase

6.8.1 Whilst loss of restocking generally represents an adverse impact on a forestry owner, given its ease of replacement, its loss is considered to amplify an impact but not affect the significance of effects.

6.8.2 Property A, Smittons Forest, is of Low sensitivity. Given the forestry removal is predominantly young restocking restricted to the forestry edge and the loss of mature forestry is restricted to one compartment in poor condition which was categorised on the legacy FMP as ready for harvest, a Low magnitude of impact equating to a **minor (not significant)** effect is anticipated, on the basis that this is a small change over a limited area.

6.8.3 Property B, Auchrae Forest, is of Low sensitivity. Given the forestry removal is predominantly young restocking with loss of mature forestry totalling less than 5 ha and restricted to one compartment, a Low magnitude of impact equating to a **minor (not significant)** effect is anticipated, on the basis that this is a small change over a limited area. Property C, Corlae Forest, is of Low sensitivity. Given the forestry removal is predominantly young restocking and loss of mature forestry restricted to two compartments at the forestry edge, a Low magnitude of impact equating to a **minor (not significant)** effect is anticipated, also on the basis of a small change over a limited area.

6.8.4 Property D, Daltallochan Hill, is of Low sensitivity. Given that the forestry removal entirely comprises young restocking through new woodland creation, a Low magnitude of impact equating to a **minor (not significant)** effect is anticipated, on the basis that this is a very small change over a wider area.

Operational Phase

6.8.5 The OC, after woodland removal, is deemed to be of negligible sensitivity, and the impact of vegetation management is considered to represent a Low magnitude of change. Overall, the adverse effect on forestry removal during operation is assessed as **negligible (not significant).**

6.8.6 Given the Low sensitivity of forestry within the Study Area and mostly low risk of windthrow, a Low magnitude of impact equating to a **negligible (not significant)** effect of windthrow is anticipated during operation. Given the size of the area and location in relation to the Proposed Development, windthrow risk at W1 also has a Low magnitude of impact equating to a **negligible (not significant)** effect during operation.

6.8.7 Given all forestry loss is restricted to a small number of compartments, a Low magnitude of impact equating to a **negligible (not significant)** effect on forestry management is anticipated during operation. This is because the Proposed Development does not introduce significant restrictions on access, harvesting schedules, or future restocking activities. In addition, the retained forest areas remain accessible and functional for management purposes, and the small scale of woodland removal does not materially affect the viability or continuity of long-term forest planning.

6.9 Additional Mitigation and Enhancement

Construction

6.9.1 As the Proposed Development involves the permanent removal of woodland for the purposes of conversion to another type of land use, compensatory planting would be required in line with the Scottish Government's policy on control of woodland removal.

6.9.2 Permanent loss of 52.19 ha of woodland would require compensatory planting of suitable types in a location to be determined prior to the commencement of works.

6.9.3 All waste materials would be managed in accordance with SEPA's guidance notes – Land Use Planning System, SEPA Guidance Note LUPS-GU27 – Use of Trees Cleared to Facilitate Development on Afforested Land and the SEPA (2017) Guidance WST-G-027 version 3 Management of Forestry Waste. Given the majority of forestry is young restocking, The Applicant is likely to be required to apply for an exemption for chipping of waste wood.

6.9.4 There would be a contractual management requirement for the successful Principal Contractor to fully implement a comprehensive and site-specific Construction Environmental Management Plan (CEMP). This document would detail how the successful Contractor would manage all works in accordance with all commitments and mitigation detailed in the EIAR, statutory consents and authorisations, and industry good practice and guidance, including pollution prevention guidance.

6.9.5 Good practice measures with respect to felling requirements will be incorporated into the CEMP, including:

- adherence to the seven Forestry Commission (Scottish Forestry) Guidelines, e.g. *'Forests and Water: UK Forestry Standard Guidelines'*;
- management of forestry waste (SEPA) to ensure all excess waste resulting from forestry operations is correctly disposed of; and
- implementation of tree harvesting and extraction methods to ensure minimisation of soil disturbance and compaction.

6.9.6 All woodland removal operations contracted by The Applicant would adhere to the UKFS.

6.10 Residual Effect

6.10.1 No significant effects are anticipated on forestry during construction or operation of the Proposed Development.

6.11 Cumulative Assessment

6.11.1 Holm Hill Substation, Shepherd's Rig Wind Farm and Lorg Wind Farm were identified as having overlapping Zones of Influence with the Proposed Development. However, following assessment of the potential cumulative impact, no in-combination effects or magnification of effects is expected to occur. **Chapter 11: Cumulative Assessment** provides more details on the cumulative effects assessment.

6.12 Summary

6.12.1 This Chapter reports upon the significance of the predicted residual effects from the construction and operation of the Proposed Development on forestry.

6.12.2 The Proposed Development is predicted to result in the direct loss of 52.19 ha of commercial forestry due to the requirement to create an OC for the construction and safe operation of the proposed OHL. Compensatory planting proposals would require approval before works commence, starting with the identification of suitable available land.

6.12.3 Given the limited forestry removal of a small number of compartments, and moderately average quality of forestry, no significant impacts on forestry are anticipated during construction or operation of the Proposed Development.

6.12.4 It is recommended that coordination with forest managers is undertaken to minimise these impacts, coordinate efforts of forestry removal and integrate project activities with ongoing forest management plans. **Table 6.7** below summarises the significance of effects on forestry:

Table 6.7: Summary of Construction Effects

Description of Effect	Pre-mitigation Effect		Additional Mitigation	Residual Effect	
	Magnitude	Significance		Magnitude	Significance
Permanent removal of Smittons forest within the OC	Low adverse	**Minor, not significant**	Construction phase best practices and compensatory planting	Low adverse	**Minor, not significant**
Permanent removal of Auchrea forest within the OC	Low adverse	**Minor, not significant**	Construction phase best practices and compensatory planting	Low adverse	**Minor, not significant**
Permanent removal of Corlae forest within the OC	Low adverse	**Minor, not significant**	Construction phase best practices and compensatory planting	Low adverse	**Minor, not significant**
Permanent removal of Daltallochan Hill forest within the OC	Low adverse	**Minor, not significant**	Construction phase best practices and compensatory planting	Low adverse	**Minor, not significant**
Maintenance of OC during operation	Low adverse	**Negligible, not significant**	-	Low adverse	**Negligible, not significant**
Windthrow of new brown edges during operation	Low adverse	**Negligible, not significant**	Forestry best practices to identify a windfirm edge.	Low adverse	**Negligible, not significant**
Disruption to forestry management	Low adverse	**Negligible, not significant**	-	Low adverse	**Negligible, not significant**

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