Volume 2: Chapter 7 - Land Use and Prime Agricultural Land





VOLUME 2, CHAPTER 7: LAND USE AND PRIME AGRICULTURAL LAND

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7. LAND USE AND PRIME AGRICULTURAL LAND

7.1 Introduction

- 7.1.1 This Chapter provides the baseline land use context and key sensitive receptors for each section of the Proposed Development (Sections A-F) and presents an assessment of the effects of the Proposed Development on prime agricultural land (PAL), recreational airfields and recreational fisheries. It also sets out key mitigation measures to ensure any adverse effects from the Proposed Development during construction are avoided or minimised.
- 7.1.2 The Proposed Development is located in a predominantly rural area with much of the land currently in agricultural use consisting primarily of a mix of arable and lowland and upland grazing. There are a number of small settlements and scattered properties along the route of the Proposed Development as well as recreational features including Core Paths, National Cycle Network (NCN) routes, other public Rights of Way (RoW), recreational airfields, recreational fisheries, commercial forests and woodland areas.
- 7.1.3 While this Chapter considers land use in general and the effects on PAL, recreational airfields and recreational fisheries, other Chapters in this Environmental Impact Assessment Report (EIAR) consider other land uses and effects in detail. An assessment of the effects of the Proposed Development on forestry and woodland is considered in full in Volume 2, Chapter 8: Forestry. Effects of the Proposed Development on the amenity of recreation and residential receptors are considered in Volume 2, Chapter 9: Landscape and Visual Amenity, effects on residential receptors are also considered in Volume 2, Chapter 15: Noise and Vibration as part of the assessment of noise impacts, and effects on roads and access are considered in Volume 2, Chapter 14: Traffic and Transport. The effects of the Proposed Development on terrestrial and aquatic habitats and species, including fish, are considered in Volume 2, Chapter 11: Ecology, in addition, the effects on soils in relation to the loss, disturbance or erosion of peatland and carbon-rich soils are considered in Volume 2, Chapter 13: Hydrology, Hydrogeology, Geology and Soils. These aspects are therefore not discussed in this Chapter.
- 7.1.4 This Chapter should be read in conjunction with Volume 1, Chapter 3: Project Description for full details of the Proposed Development, including Volume 3, Figures 3.1.1 to 3.1.29: Proposed Development for which Section 37 Consent (*Electricity Act, 1989*) is sought.
- 7.1.5 The Land Use assessment was undertaken by LUC and Ateal Planning and Environment Ltd.
- 7.1.6 The following terminology is referred to throughout this Chapter:
 - Land take: the term 'land take' refers to the physical area of land that is permanently 'taken' by a Proposed Development. Land take is permanent and irreversible, and the use of the land changes from its original use to that of the Proposed Development for the duration of its operation.
 - Prime agricultural land (PAL): PAL is categorised in the Land Capability Classification (LCA)¹ for agriculture in Scotland as Class 1, Class 2 and Class 3.1, while Classes 3.2, 4, 5, 6 and 7 and their subdivisions are not classified as PAL. The LCA classification is used to rank land on the basis of its potential productivity and cropping flexibility. PAL is considered to be of a higher sensitivity to development than areas of land with lower agricultural classifications due to its relative scarcity as a resource. PAL is referred to and protected in the Scottish Government's National Planning Framework 4 (NPF4²) and local planning policy.
 - Recreational airfield: small unlicensed recreational aviation airfield or airstrip which is not safeguarded in the same way as licensed or military airfields.
 - Recreational fishery: rivers in Scotland where recreational fishing takes place are divided into individual stretches of river (known as fisheries) and also fishing beats. Each fishing beat in a fishery can be several kilometres in

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¹ Scotland's soils, 2024. *Land Capability for Agriculture in Scotland*. Mapping based on the Macaulay Land Capability for Agriculture classification which is the official agricultural classification system used in Scotland. [Online] Available at: https://soils.environment.gov.scot/maps/capability-maps/.

² Scottish Government, 2023. *National Panning Framework 4.* [Online] Available at: https://www.gov.scot/publications/national-planning-framework-4/documents/.



- length and is generally determined by who owns the land and/or manages the fishing activities on either side of the river. This assessment refers to recreational fisheries rather than individual fishing beats.
- Recreational route: public recreational access route or active travel route which is recorded as a non-motorised public RoW including National Cycle Network (NCN) Routes, Core Paths, Heritage Paths, Scottish Hill Tracks and other public RoW set out in ScotWays Catalogue of Rights of Way (CROW)³, by local authorities or by Sustrans.

7.2 Scope of the Assessment

- 7.2.1 The effects the Proposed Development would have on land use predominantly relate to PAL which is considered in full in this Chapter.
- 7.2.2 Effects on licensed airports and Ministry of Defence (MOD) airfields or bases and their operations were scoped out of the EIA, however three small recreational airfields lie within the Limit of Deviation (LOD) of the Proposed Development which are considered in this Chapter. Also, the Proposed Development oversails a number of rivers which are used for recreational fishing, the effect on these recreational fisheries is also assessed in this Chapter.
- 7.2.3 In addition, to provide context, this Chapter describes the general land uses within the LOD of the Proposed Development and presents details of recreational routes in the area including, Core Paths and NCN routes.
- 7.2.4 PAL is shown on Volume 3, Figures 7.1.1 to 7.1.7: Land Capability for Agriculture. Recreational routes, recreational airfields and recreational fisheries considered in this Chapter are shown on Volume 3, Figures 7.2.1 to 7.2.7: Recreational Assets.
- 7.2.5 Mitigation measures are set out in this Chapter in Section 7.5: Mitigation and Monitoring.

Effects Assessed in Full

- 7.2.6 The following effects were 'scoped in' for detailed assessment in this Chapter, as set out in the Environmental Impact Assessment (EIA) Scoping Report⁴:
 - the effect the Proposed Development would have on PAL: the assessment considers the magnitude of the land take from PAL required for the permanent features of the Proposed Development;
 - land use effects on recreational airfields: the assessment considers the land use impact on recreational airfields from the permanent features of the Proposed Development;
 - land use effects on recreational fisheries: the assessment considers the land use impact on recreational fisheries
 from the permanent features of the Proposed Development; and
 - cumulative land use effects of the Proposed Development alongside other reasonably foreseeable future developments.
- 7.2.7 Effects on recreational airfields and recreational fishing were not initially scoped into the EIA but subsequent consultations indicated that there may be potential for significant effects, and they have therefore been included within this land use assessment.

Effects Scoped Out

- 7.2.8 On the basis of the desk-based work undertaken at the EIA scoping stage, the professional judgement of the EIA team, experience from other relevant projects, policy guidance and feedback received from consultees, the following land use effects were 'scoped out' of this assessment, as set out in the EIA Scoping Report⁴:
 - Land Use:
 - temporary effects on land uses: as land used temporarily would be restored to its original use;
 - operational effects on land use: as no further land take would be required during the operation of the Proposed Development;

³ ScotWays Catalogue of Rights of Way (CROW). [Online] Available at: https://scotways.com/outdoor-access/.

⁴ See Volume 5, Appendix 6.1: Scoping Report, and Appendix 6.2: Scoping Opinion.



- indirect effects: as land take primarily has direct land use effects only;
- land use effects on residential properties, communities, commercial properties, utilities and licensed and military aviation and development land: as land take is not predicted to have significant effects on these land uses, effects on the amenity of residential receptors are considered through the assessments reported in Volume 2, Chapter 9: Landscape and Visual Amenity and Volume 2, Chapter 15: Noise and Vibration;
- impacts on site specific soil quality and soil conditions (including peat), hydrology, geology and hydrogeology: as effects on these are considered in Volume 2, Chapter 13: Hydrology, Hydrogeology, Geology and Soils;
- impacts on forestry and woodland: as effects on these are considered in Volume 2, Chapter 8: Forestry;
- impacts on terrestrial and aquatic ecological habitats and species including fish: as effects on these are considered in Volume 2, Chapter 11: Ecology; and
- decommissioning effects: as the land would be expected to be restored to its former uses in the event the overhead line (OHL) infrastructure was dismantled and decommissioned;

Agriculture:

- construction impacts on agricultural land: as this is not predicted to be significant as construction effects
 would be temporary and managed through the implementation of the relevant mitigation measures set out in
 the Construction Environmental Management Plan (CEMP) which will include a soil management plan and a
 site restoration plan; and
- construction and operational effects on farm units, farm viability and farm operation and businesses: as this
 would be addressed directly through compensation between SSEN Transmission and any affected
 landowners and tenants. Construction effects would be temporary and managed through the implementation
 of the relevant mitigation measures such as the CEMP and the Enhanced Construction Traffic Management
 Plan (CTMP);

Recreation and Tourism:

- impacts on Core Paths, NCN routes, other public RoW and recreational routes: as the land use change is not predicted to have significant effects on the users of these assets and any construction effects would be temporary and managed through implementation of relevant mitigation measures such as those set out in an Outdoor Access Management Plan and other construction management plans. As noted above recreational routes are described in this Chapter for context; and
- construction and operational effects on the viability of recreational businesses or organisations: as this
 would be addressed directly through compensation between SSEN Transmission and any affected
 landowners or tenants. Construction effects would be temporary and managed through the implementation
 of the relevant mitigation measures such as the construction management plans.
- 7.2.9 A Socio-economic Assessment⁵ forms part of the Section 37 application for the Proposed Development. This provides an assessment of the economic impact of the Proposed Development, sets out the context of tourism in the area and considers the relationship between the Proposed Development and the local tourism economy.

Study Area

7.2.10 The study area for the assessment of PAL focuses on the predicted permanent land take of the Proposed Development ie the land that would be required permanently for the formation of the OHL towers and the permanent access tracks. No cable sealing end compounds (CSEC) would be located on PAL.

7.2.11 The total area required for the tower bases would vary in size from a minimum of 90 m² to a maximum of 900 m² and would most likely take the form of four separate concrete bases one beneath each tower leg. For the purposes of the

⁵ Biggar Economics, August 2025. Socio-Economic Assessment of the Kintore – Tealing Overhead Line 400 kV Connection.



PAL assessment the average land take area⁶ assumed for each permanent tower base was 272.5 m². Permanent access tracks are assumed to have an average width of 4.5 m. These areas are larger than the land take areas presented in **Volume 1**, **Chapter 3**: **Project Description** as they take account of below ground foundations and the possible use of intrusive construction techniques such as piling which, if used, would potentially also result in the loss of PAL. These areas represent a reasonable worst-case scenario of permanent land take for the Proposed Development; the actual loss of PAL is likely to be less than that reported in this Chapter.

7.2.12 The study area for the land use assessment, including for the recreational airfields and fisheries, was based on the extents of the horizontal LOD for the Proposed Development.

7.3 Assessment Methodology

- 7.3.1 There are no specific industry-wide criteria for assessing impacts on PAL or evaluating their significance. However, this assessment draws on, and recognises, the importance of the soil resource as reflected in key national and local planning policy and adopts the approach used on other SSEN Transmission projects in rural northern Scotland for which environmental assessments have been undertaken.
- 7.3.2 There are no specific industry-wide criteria for assessing land use impacts on recreational airfields or recreational fisheries, these assessments draw upon industry guidance where available, professional judgment, feedback from consultees, and an Aviation Impact Assessment which determined the potential risk of the Proposed Development upon aviation activity (set out in Volume 5, Appendix 7.2: Aviation Impact Assessment). Volume 1, Chapter 6, Scope and Consultation, sets out details of correspondence between SSEN Transmission and commercial airports and MoD airfields or bases.

Legislation, Policy and Guidance

Legislation

- 7.3.3 This assessment is carried out in accordance with the principles contained within the following legislation:
 - The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations).
- 7.3.4 The EIA Regulations clearly state that land and soil should be considered when undertaking an EIA.

Policy

- 7.3.5 The following policies of relevance to the assessment were considered:
 - NPF42: Policy 5 (a and b) Soils;
 - Angus Local Development Plan (LDP)7: Policy PV20 Soils and Geodiversity; and
 - Aberdeenshire LDP⁸: Policy PR1.1 and PR1.5 Prime Agricultural Land.
- 7.3.6 The NPF4 identifies PAL as being "Class 1, 2 or 3.1 in the land capability classification for agriculture developed by Macaulay Land Use Research Institute (now the James Hutton Institute). However, for land of lesser quality that is culturally or locally important for primary use (i.e. for example food production, flood management, water catchment management and carbon storage), this value should be recognised in decision-making".
- 7.3.7 NPF4's Policy Intent for Soils is "to protect carbon-rich soils, restore peatlands and minimise disturbance to soils from development". Policy 5 states:
 - a) Development proposals will only be supported if they are designed and constructed:

 $^{^6}$ The permanent tower base land take dimensions would vary based on the tower type from around 9.49 m x 9.49 m (around 90 m 2) to 30 m x 30 m (around 900 m 2). With the average permanent land take per tower assumed to be around 16.5 m x 16.5 m (around 272.5 m 2).

⁷ Angus Council, 2016. *Angus Local Development Plan*. [Online] Available at: https://www.angus.gov.uk/media/angus local development plan adopted september 2016.

⁸ Aberdeenshire Council, 2023. *Aberdeenshire Local Development Plan*. [Online] Available at: https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2023.



- i. In accordance with the mitigation hierarchy by first avoiding and then minimising the amount of disturbance to soils on undeveloped land; and
- ii. In a manner that protects soil from damage including from compaction and erosion, and that minimises soil sealing.
- b) Development proposals on prime agricultural land, or land of lesser quality that is culturally or locally important for primary use, as identified by the LDP, will only be supported where it is for:
- i. Essential infrastructure and there is a specific locational need and no other suitable site... In all of the above exceptions, the layout and design of the proposal minimises the amount of protected land that is required."
- 7.3.8 Angus LDP's Policy PV20 Soils and Geodiversity states:

"Development proposals on prime agricultural land will only be supported where they:

- support delivery of the development strategy and policies in this local plan;
- are small scale and directly related to a rural business or mineral extraction; or
- constitute renewable energy development and are supported by a commitment to a bond commensurate with site restoration requirements.

Design and layout should minimise land required for development proposals on agricultural land and should not render any farm unit unviable. Development proposals affecting deep peat or carbon rich soils will not be allowed unless there is an overwhelming social or economic need that cannot be met elsewhere. Where peat and carbon rich soils are present, applicants should assess the likely effects of development proposals on carbon dioxide emissions. All development proposals will incorporate measures to manage, protect and reinstate valuable soils, groundwater and soil biodiversity during construction."

7.3.9 In addition, Angus LDP's Policy PV9 Renewable and Local Carbon Energy Development can be applied in part to the Proposed Development, it states:

"Proposals for renewable and low carbon energy development* will be supported in principle where they meet the following criteria:

- the location, siting and appearance of apparatus, and any associated works and infrastructure have been chosen and/or designed to minimise impact on amenity, landscape and environment, while respecting operational efficiency;
- access for construction and maintenance traffic can be achieved without compromising road safety or causing unacceptable change to the environment and landscape;
- the site has been designed to make links to the national grid and/or other users of renewable energy and heat generated on site;
- there will be no unacceptable impact on existing or proposed aviation, defence, seismological or telecommunications facilities;
- there will be no unacceptable adverse impact individually or cumulatively with other existing or proposed development on:
 - landscape character, setting within the immediate and wider landscape (including cross boundary or regional features and landscapes), sensitive viewpoints and public access routes;
 - sites designated for natural heritage (including birds), scientific, historic, cultural or archaeological reasons;
 - any populations of protected species; and
 - the amenity of communities or individual dwellings including visual impact, noise, shadow flicker.
- during construction, operation and decommissioning of the energy plant there will be no unacceptable impacts on:
 - groundwater;
 - surface water resources; or
 - carbon rich soils, deep peat and priority peatland habitat or geodiversity.



Where appropriate mitigation measures must be supported by commitment to a bond commensurate with site restoration requirements.

Consideration may be given to additional factors such as contribution to targets for energy generation and emissions, and/or local socio-economic economic impact....

* infrastructure, activity and materials required for generation, storage or transmission of energy where it is within the remit of the council as local planning authority (or other duty). Includes new sites, extensions and/or repowering of established sites for onshore wind."

7.3.10 Aberdeenshire LDP's Policy PR1.5 Prime Agricultural Land states:

"Prime agricultural land is defined as classes 1, 2 and 3.1 of the Soil Survey for Scotland, Land Capability for Agriculture series. Land falling within this classification should not be developed unless it is essential, allocated in the Local Development Plan or an independent assessment of the site confirms a lesser quality of land. For clarity, time-limited proposals for renewable energy generation or mineral extraction may be acceptable on prime agricultural land providing the site will be restored and returned to its original status. In addition, small-scale development proposals that are directly linked to a rural business may be permissible where they are located on prime agricultural land."

7.3.11 In addition, Aberdeenshire LDP's Policy PR1.1 Protecting Important Resources states:

"We will not approve developments that have a negative effect on important environmental resources associated with air quality, the water environment, important mineral deposits, prime agricultural land, peat and other carbon rich soils, open space, and important trees and woodland. In all cases development which impacts on any of these features will only be permitted when public economic or social benefits clearly outweigh any negative effects on the protected resource, and there are no reasonable alternative sites."

Guidance

- 7.3.12 This assessment was carried out in accordance with the principles contained within the following guidance documents:
 - the Scottish Government's Scottish Soil Framework⁹: which acknowledges that there is no coherent soil protection policy in effect in Scotland and aims to "promote the sustainable management and protection of soils consistent with the economic, social and environmental needs of Scotland";
 - the Scottish Government's State of Scotland's Soils¹⁰: which states that inadequate weight is given by planning
 authorities to protecting PAL and that measures to mitigate the impact of soil sealing could be introduced,
 including: examining the footprint of proposed developments; maintaining the functionality of soils on parts of
 development sites that need not be sealed; and ending practices that treat soil as waste;
 - the Institute of Environmental Management and Assessment (IEMA) Guide: A New Perspective on Land and Soil
 in Environmental Impact Assessment¹¹: which summarises the role the planning system must play in protecting
 soil and seeks to improve planning for the sustainable use of soils; as well as discussing the delivery of
 mitigation measures to more fully conserve soils displaced by development;

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⁹ Scottish Government, 2009. *The Scottish Soil Framework*. [Online] Available at: https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2009/05/scottish-soil-framework/documents/0081576-pdf/0081576-pdf/govscot%3Adocument/0081576.pdf.

¹⁰ Dobbie, K.E., Bruneau, P.M.C. and Towers, W. (eds), 2011. *The State of Scotland's Soil. Natural Scotland*. [Online] Available at: http://www.sepa.org.uk/media/138741/state-of-soil-report-final.pdf.

¹¹ Institute of Environmental Management & Assessment (IEMA), 2022. *Guide: A New Perspective on Land and Soil in Environmental Impact Assessment.* [Online] Available at: www.iema.net. As of July 2025 IEMA is now known as the Institute of Sustainability & Environmental Professionals (ISEP).



- Energy Networks Association (ENA) guidance Managing Risks Associated with Angling in Close Proximity to
 Overhead Electric Power Lines¹²: which sets out the risks and responsibilities in relation to fishing within the
 vicinity of OHLs; and
- ENA A Guide to Risk Assessment Supporting a Reduction in the Default 30 metre Angling Exclusion Zone ¹³: which sets out a risk assessment approach that can be adopted to consider the site specific risks associated with fishing within the vicinity of OHL.

Consultation

- 7.3.13 In undertaking this assessment consideration was given to the EIA Scoping and pre-application consultation responses that were relevant to land use, these are detailed in Table 7.1: Summary of EIA Consultation Responses Relevant to Land Use. A full summary of consultation is provided in Volume 1, Chapter 6: Scope and Consultation including the EIA Scoping Report and Scoping Opinion⁴.
- 7.3.14 Land use effects on recreational airfields and recreation fishing were initially scoped out of the EIA as effects were not predicted at that stage to potentially be significant. Since the drafting of the EIA Scoping Report and in response to consultation feedback and alignment finalisation it was considered that the effects on recreational airfields and recreational fisheries may be significant and therefore the land use impacts on these receptors have been considered in this Chapter.

Table 7.1: Summary of EIA Consultation Responses Relevant to Land Use

Consultee	Consultation	Issue Raised	How Issue has been Addressed
Aberdeenshire Council	EIA Scoping Consultation Response 15 October 2024	Aberdeenshire Council noted that there is potential for Significant effects on recreation but that these effects are to be covered by embedded and applied mitigation measures, including provision of an Access Management Plan (AMP).	Effects on recreation and tourism from the Proposed Development were scoped out of this EIAR for the reasons set out in Section 7.2 above. However, the location of Core Paths, NCN routes, other public RoW, recreational airfields and rivers used for recreational fishing within the LOD are described in this Chapter.
Angus Council	EIA Scoping Consultation Response 9 October 2024	Angus Council's Countryside Access Officer requested that consideration be given to additional recreational receptors.	Measures to prevent and reduce effects from the Proposed Development on land use and land users during construction are set out in this Chapter (see Section 7.5); these are also included in Volume 2, Chapter 17: Schedule of Mitigation.
			An outline Outdoor Access Management Plan (OAMP) has been provided in Volume 5, Appendix 7.1: Outline Outdoor Access Management Plan. The outline OAMP sets out measures specifically to protect users of recreational routes during construction, this will be developed further by the Principal Contractors.
			In addition, enhancement measures delivered through SSEN Transmission's Community Benefits Funds seek to ensure a positive legacy for local communities. The priorities for local funding are decided in consultation with local communities and could include the improvement of outdoor and recreational facilities.

¹² Energy Networks Association (ENA), 2016. Safety, Health and Environment, Angler Safety, Managing Risks Associated with Angling in Close Proximity to Overhead Electric Power Lines. [Online] Available at: www.energynetworks.org/publications/?search=angler&id=2623.

¹³ Energy Networks Association (ENA), 2014. *Safety, Health and Environment Angler Safety, A Guide to Risk Assessment Supporting a Reduction in the Default 30 metre Angling Exclusion Zone*. [Online] Available at: www.energynetworks.org/publications/?search=angler&id=2623.



Consultee	Consultation	Issue Raised	How Issue has been Addressed
			Effects on the amenity of recreational receptors are considered in Volume 2, Chapter 9: Landscape and Visual Amenity.
Aberlemno and District Community Council	EIA Scoping Consultation Response 9 October 2024	Aberlemno and District Community Council expressed concerns relating to the impact on: • agriculture including food scarcity and loss of land; • biosecurity; • field drain from compaction/damage; and • tourism, recreation and leisure facilities. They also raised concerns about site access for works, restoration following the works, as well as access for maintenance and repairs.	· ·

¹⁴ SSEN Transmission, *Working with Landowners, Grantors Charter*. [Online] Available at: https://www.ssentransmission.co.uk/information-centre/working-with-landowners/.



Consultee	Consultation	Issue Raised	How Issue has been Addressed
			consultation with local communities and could include the improvement of outdoor and recreational facilities.
Crathes, Drumoak and Durris Community Council	EIA Scoping Consultation Response 8 October 2024	Crathes, Drumoak and Durris Community Council expressed concerns relating to the impact on agriculture and the operability of some farms, as well biosecurity issues. In addition, concerns were expressed regarding the impact to recreation and tourism.	Please see response to Aberlemno and District Community Council above.
Inveresk Community Council	EIA Scoping Consultation Response 15 October 2024	Inveresk Community Council raised issues relating to the potential to impact upon recreation and the proximity of the Proposed Development to properties. With regards to agriculture, concerns were raised relating to the impact of Electric and Magnetic Fields (EMF) on GPS-based technologies used for modern agriculture, the conflict between irrigation techniques and OHLs, as well as concerns with biosecurity issues, particularly the potential spread of Potato Cyst Nematode (PCN) and Clubroot.	Please see response to Aberlemno and District Community Council above. Permanent land take for the Proposed Development would not directly impact residential properties. Residential visual amenity and noise impacts are considered in Volume 2, Chapter 9: Landscape and Visual Amenity and Chapter 15: Noise and Vibration. To date no stakeholder feedback has indicated that the Proposed Development would impact GPS or mobile phone receptions. SSEN Transmission's experience from other projects and their asset management is that there is no evidence that EMF impacts communication systems. Effects on farms and farm operations that are directly affected by the Proposed Development will be addressed by SSEN Transmission directly.
Mearns Community Council	EIA Scoping Consultation Response 23 October 2024	Mearns Community Council raised concerns relating to the potential for the Proposed Development to spread PCN.	Please see response to Aberlemno and District Community Council above.
The British Horse Society Scotland (BHSS)	EIA Scoping Consultation Response 8 October 2024	BHSS note that equestrians have the same rights of access to the outdoors as other non-motorised users and request that equestrian use is considered. BHSS request that that within the AMP, it is recognised that designated paths are used by a variety of non-motorised users, including horse-riders, and consideration is given to how access for all path users will be managed during construction and operation. BHSS note that woodland tracks and rides are often used by equestrians and should be considered.	Although effects on recreation (other than recreational aviation and fishing) were scoped out of this EIAR for the reasons set out in Section 7.2 , public RoW data was used to inform design and ensure that effects on public access were avoided where possible. Nevertheless, measures to prevent and reduce effects from the Proposed Development on land use including public RoW are set out in this Chapter in Section 7.5 , and an outline OAMP has been included in Volume 5 , Appendix 7.1 : Outline Outdoor Access Management Plan this recognises equestrian users and includes a BHSS leaflet.
Summary of Ot	ther Key Consult	ation Responses Relevant to La	nd Use
Dee District Salmon Fishery Board (Dee DSFB)	Response to Alignment Consultation	Dee DSFB expressed concerns about exclusion zones at tower crossing points on the River Dee as this could	Land use effects on recreational fisheries are considered in this Chapter.



Consultee	Consultation	Issue Raised	How Issue has been Addressed
	20 November 2024	impact fishing opportunities and fishing pools, as well as effects on migratory fish, spawning and juvenile rearing areas. Dee DSFB stated that full engagement with fishery owners is essential. Further discussion would be welcomed with SSEN Transmission regarding Dee DSFB and River Dee Trust's plans for a catchment wide restoration plan for the Culter Burn.	Volume 2, Chapter 11: Ecology considers the effects on migratory fish. SSEN Transmission is in liaison with the owners and operators of all affected fisheries with the aim of identifying mitigation measures and will discuss with the Dee their plans for a catchment wide restoration plan for the Culter Burn.
Esk District Salmon Fishery Board (Esk DSFB)	Response to Alignment Consultation 20 November 2024	Esk DSFB expressed concerns about impacts on fishing opportunities and amenity on the River South Esk, including losing access to certain pools, as well as effects on migratory fish, spawning and juvenile rearing areas, and river ecology. Esk DSFB stated they and the Esk Rivers and Fisheries Trust are keen to work with SSEN Transmission to mitigate against adverse impacts on fisheries from OHL.	Land use effects on recreational fisheries are considered in this Chapter. Volume 2, Chapter 11: Ecology considers the effects on migratory fish. SSEN Transmission is in liaison with the owners and operators of all affected fisheries with the aim of identifying mitigation measures and will discuss with the Esk DSFB any mitigation measures identified.
General Aviation Awareness Council (GAAC)	Response to Alignment Consultation 30 April 2024	The location of the OHL could render two airfields (Edzell Gossesslie and Fordoun) inoperable for aviation safety reasons. SSEN Transmission should ensure that all aviation sites are fully investigated and not compromised by the proposed new OHL route.	Land use effects on recreational airfields are considered in this Chapter and an Aviation Impact Assessment is set out in Volume 5, Appendix 7.2: Aviation Impact Assessment.
ScotWays	Response to Public Rights of Way data request 28 February 2024 25 April 2025	ScotWays expressed concern relating to a number of Rights of Way along the route of the Proposed Development and provided data on their locations.	Although effects on recreation (other than recreational aviation and fishing) were scoped out of this EIAR for the reasons set out in Section 7.2, public RoW data was used to inform design and ensure that effects on public access were avoided where possible and effects on the amenity of recreational receptors are considered in Volume 2, Chapter 9: Landscape and Visual Amenity. Nevertheless, measures to prevent and reduce effects from the Proposed Development on land use including public RoW are set out in this Chapter in Section 7.5, and an outline OAMP has been included in Volume 5, Appendix 7.1: Outline Outdoor Access Management Plan.

Baseline Desk Based Research and Data Sources

7.3.15 This Chapter has drawn on information from published sources and from liaison and consultation specific to the Proposed Development.



- 7.3.16 Additional information was obtained from SSEN Transmission and other EIA topic teams. The assessment also refers to the Aviation Impact Assessment for the Proposed Development (set out in Volume 5, Appendix 7.2: Aviation Impact Assessment).
- 7.3.17 Digital Ordnance Survey (OS) mapping and digital map based data were analysed using Geographic Information Systems (GIS). The Proposed Development's LOD and permanent land take areas were digitally layered on to the OS base mapping and map based datasets to determine the level of interaction between the Proposed Development and land uses, and to calculate the effect on PAL. Where map based data was not available digitally it was analysed manually.
- 7.3.18 The following data sources informed the assessment:
 - OS base mapping February 2025: digital base mapping which shows physical and geographical features;
 - Scotland's soils Land Capability for Agriculture maps¹⁵: digital agricultural classifications which are reproduced on Volume 3, Figures 7.1.1 to 7.1.7: Land Capability for Agriculture;
 - Scotland Landcover Map 2022¹⁶: digital map based habitat and land use information commissioned by NatureScot;
 - Core Paths Scotland 2025¹⁷: dataset of Scotland's Core Paths which are reproduced on Volume 3, Figures 7.2.1 to 7.2.7: Recreational Assets;
 - National Cycle Network (NCN) 2025¹⁸: dataset of NCN routes which are reproduced on Volume 3, Figures 7.2.1 to 7.2.7: Recreational Assets;
 - Public RoW, Heritage Paths and Scottish Hill Tracks^{3&19}: mapping showing recorded public RoW;
 - Angus LDP 2016⁷: local development plan areas protected and proposed for future development;
 - Aberdeenshire LDP 2023⁸: local development plan areas protected and proposed for future development;
 - The General Aviation Awareness Council website²⁰;
 - Dee District Salmon Fishery Board and River Dee Trust website²¹; and
 - Esk District Salmon Fishery Board and Esk Rivers Fisheries Trust website 22.

Assessing Significance for Prime Agricultural Land

7.3.19 As set out in **Section 7.2** the effects on PAL from the Proposed Development relate to the permanent land take required for the OHL towers and permanent access tracks. The criteria for assessing the effects on PAL are set out below.

Sensitivity

- 7.3.20 The sensitivity of agricultural land to change has been assessed according to its LCA classification¹. The classification scale is as follows:
 - Class 1: Land capable of producing a very wide range of crops;
 - Class 2: Land capable of producing a wide range of crops;

¹⁵ Land Capability for Agriculture Maps of Scotland based on Macaulay Institute for Soil Research, Aberdeen. Digital mapping from the James Hutton Institute 2025 at a scale of 1:250,000 and 1:50,000. [Online] Available at: https://map.environment.gov.scot/Soil maps/?layer=6.

¹⁶ Scotland 2022 Landcover Map (based on 2019 data). [Online] Available at: https://www.space-intelligence.com/scotland-landcover/

¹⁷ Sottish local authority Core Paths data from Spatial Hub (provider of Scottish local authority spatial data 2025).

¹⁸ National Cycle Network (Public) data provided by Sustrans 2025.

¹⁹ Public Rights of Way (RoW), Heritage Path and Scottish Hill Track information obtained from Scotways in 2024. Due to Copyright reasons, it has not been possible for this information to be reproduced digitally within this EIAR.

²⁰ The General Aviation Awareness Council. [Online] Available at: https://gaac.org.uk/.

²¹ Dee District Salmon Fishery Board & River Dee Trust. [Online] Available at: https://riverdee.org.uk/.

²² Esk District Salmon Fishery Board & Esk Rivers Fisheries Trust. [Online] Available at: https://eskriversangus.uk/.



- Class 3.1: Land capable of producing consistently high yields of a narrow range of crops and/or moderate yields
 of a wider range;
- Class 3.2: Land capable of average production though high yields of barley, oats and grass can be obtained;
- Class 4.1: Land capable of producing a narrow range of crops, primarily grassland with short arable breaks;
- Class 4.2: Land capable of producing a narrow range of crops, primarily on grassland with short arable breaks of
- forage crops;
- Class 5.1: Land capable of use as improved grassland. Few problems with pasture establishment and maintenance and potential high yields;
- Class 5.2: Land capable of use as improved grassland. Few problems with pasture establishment but may be difficult to maintain;
- Class 5.3: Land capable of use as improved grassland. Pasture deteriorates quickly;
- Class 6.1: Land capable of use as rough grazings with a high proportion of palatable plants;
- Class 6.2: Land capable of use as rough grazings with moderate quality plants;
- Class 6.3: Land capable of use as rough grazings with low quality plants; and
- Class 7: Land of very limited agricultural value.
- 7.3.21 Scotland's soils Land Capability for Agriculture¹ states "Classes 1 to 3.1 are known as prime agricultural land".

 Classes 3.2, 4, 5, 6 and 7, and their subdivisions, are not classified as PAL and therefore they are not considered as part of this assessment. The LDPs do not identify any other agricultural land of lesser quality than PAL that is culturally or locally important for primary use that should be included in this assessment.
- 7.3.22 Given the nature of PAL and its scarcity as a resource the sensitivity to land use change is considered to be High.

 Magnitude
- 7.3.23 The criteria for defining the magnitude of loss of PAL is set out in **Table 7.2**: **Criteria for Magnitude of Change**. The thresholds set out in **Table 7.2** are consistent with those used on other SSEN Transmission projects for OHL in areas in northern rural Scotland to assess the effects on PAL.

Table 7.2: Criteria for Magnitude of Change

Magnitude	Prime Agricultural Land
High	Development would directly lead to the loss of over 50 ha of PAL.
Medium	Development would directly lead to the loss of between 20 ha and 50 ha of PAL.
Low	Development would directly lead to the loss of between 5 ha and 20 ha of PAL.
Negligible	Development would directly lead to the loss of less than 5 ha of PAL.

Significance

7.3.24 The predicted significance of the effect has been determined through a standard method of assessment outlined in Volume 1, Chapter 5: EIA Process and Methodology and based on professional judgement, considering both sensitivity and magnitude of change as detailed in Table 7.3: Matrix for Determination of Significance of Effects.

Table 7.3: Matrix for Determination of Significance of Effects

		Sensitivity of Receptor/Receiving Environment to change			
		High	Medium	Low	Negligible
	High	Major	Major	Moderate	Negligible
egu nge	Medium	Major	Moderate	Minor	Negligible
Magnitude of Change	Low	Moderate	Minor	Minor	Negligible
o B	Negligible	Negligible	Negligible	Negligible	Negligible



- 7.3.25 As PAL is considered to be of a High sensitivity, the Significance of the effects of the Proposed Development predominantly relates to the magnitude of the land take.
- 7.3.26 Major and Moderate effects are considered Significant in the context of the EIA Regulations.

Assessing Significance for Recreational Airfields

Sensitivity

7.3.27 Given the nature of the use of recreational airfields by a variety of general recreational aircraft the sensitivity to land use change is considered High.

Magnitude

- 7.3.28 The effects on recreational airfields from the Proposed Development relate to the location of the towers, the alignment of OHL conductors running between the towers and the LOD within which the towers and OHL may move prior to construction through micrositing. In addition, the Aviation Impact Assessment was taken into consideration. It identified recreational airfields within close proximity to the Proposed Development attributing a level of aviation risk from the Proposed Development using a scale of Low, Medium and High. The closer the proximity of the airfield to the Proposed Development and the higher the aviation risk level the greater the impact of the Proposed Development on the airfield's operations is likely to be.
- 7.3.29 In land use terms any direct impact affecting the operational area of an airfield from the Proposed Development is considered to be a High magnitude of change.

Significance

- 7.3.30 The predicted significance of the land use effect has been determined through a standard method of assessment outlined in Volume 1, Chapter 5: EIA Process and Methodology and based on professional judgement, considering both receptor sensitivity and magnitude of change as detailed in Table 7.3: Matrix for Determination of Significance of Effects above.
- 7.3.31 As a recreational airfield is considered to be of a High sensitivity, the Significance of the effects of the Proposed Development predominantly relates to the magnitude of the land use impact, proximity and aviation risk level.

Assessing Significance for Recreational Fisheries

Sensitivity

7.3.32 Given the unique nature of some of the recreational fisheries in the vicinity of the Proposed Development as a regional and national resource the sensitivity is considered either High or Medium depending on the river affected and the extent to which the fishery is recognised as an important fishing resource; the rivers with prime fishing resources have a High sensitivity to change, the other rivers are considered to be of a Medium sensitivity. It is acknowledged that each stretch of river is unique in its value as a fishery and in its recreational amenity, and that salmon fishing in particular is focused on pools that cannot be relocated.

Magnitude

7.3.33 The ENA guidance sets out that a default 30 m exclusion zone¹² should be applied either side of an OHL as it crosses a fishery to ensure there is no contact possible between those fishing and the OHL conductors. ENA's *A Guide to Risk Assessment Supporting a Reduction in the Default 30 metre Angling Exclusion Zone*¹³ (page 9) recognises that generally removal of overhead power lines cannot be justified on a risk/cost basis and consequently the establishment of exclusion zones, education of river users and the use of warning signage is considered good practice to manage the risk. The guide sets out a process for risk assessing the exclusion zone. Fisheries tend to be several kilometres in length, the loss of up to approximately 80 m²³ to an exclusion zone is unlikely to have a major

Kintore to Tealing 400 kV OHL: EIAR Volume 2, Chapter 7: Land Use and Prime Agricultural Land

²³ The total exclusion zone would be approximately 80 m when you take into account the width between the two sets of OHL conductors plus the 30 m exclusion zones either side.



impact on the recreational use of a fishery overall. In land use terms, any direct impact from the Proposed Development on a recreational fishery is therefore considered to be a Low magnitude of change.

Significance

7.3.34 The overall effect and level of significance that the Proposed Development would have on fisheries has been determined by way of professional judgment considering both the level of Sensitivity (High or Medium) and Magnitude of change (Low) in line with **Table 7.3: Matrix for Determination of Significance of Effects** above.

Assessment Assumptions and Limitations

Assessment Assumptions

- 7.3.35 The following assumptions were made when undertaking the assessment of effects:
 - the assessments are based on publicly available information, or data and information provided by consultees. It
 is assumed that the existing published data used in this assessment are current and an accurate reflection of site
 conditions, no site surveys or soil sampling have been undertaken to support this assessment;
 - the calculations to determine the loss of PAL are based on the estimates of land take of permanent infrastructure which includes OHL tower bases and permanent access tracks only. No CSEC would be located on PAL;
 - the assessment calculations were based on reasonable worst-case scenario land take averages ie 272.5 m² was applied to all tower base locations⁶, and a 4.5 m width was applied to all permanent access tracks, the access tracks are of varying length;
 - · the PAL land take calculations have been rounded to two decimal places; and
 - it is assumed that all temporary access tracks and other working areas for construction (eg around each tower base) on areas of PAL would be removed following construction and the land use restored to pre-construction use. This will be managed by mitigation measures relating to the protection and management of soils during construction and best practice restoration methods (see Table 7.4: Applied Mitigation).

Assessment Limitations

- 7.3.36 This assessment has been limited to publicly available data on PAL sourced from Scotland's soils¹. Scotland's soils is based on the Land Capability for Agriculture assessment which was carried out in 1981 largely as a desk-based exercise using data collected between 1978 and 1981. The national scale Land Capability for Agriculture map was created in 1983 at a scale of 1:250 000. Whilst there are some data gaps in Scotland's soils data it is considered that there is sufficient information to enable an informed decision to be taken in relation to the identification and assessment of likely significant effects of the proposals on PAL.
- 7.3.37 The PAL assessment is based on the OHL tower base area and access track locations shown on Volume 3, Figures: 7.1.1 to 7.1.7: Land Capability for Agriculture. It should be noted that micrositing of some tower and track locations may be used at the final (post-consent) design stage to ensure that local site-specific aspects are taken into consideration such as field boundaries and roadside ditches. Micrositing is permitted within the LOD. The PAL calculations presented in this assessment are based on a reasonable worst-case scenario of the likely PAL land take. It is considered that any micrositing within the LOD would not significantly alter the overall conclusions of the PAL assessment.

7.4 Baseline

Land Use Description

7.4.1 The Proposed Development is approximately 105.2 km in length running predominantly across rural land from Tealing in Angus to Kintore in Aberdeenshire. The dominant land use in the LOD is agricultural, the existing land uses within each of the Proposed Development Sections A-F are as follows.

Section A

7.4.2 Within Section A, several areas of agricultural land classified as PAL would be intersected by the Proposed Development, comprising Class 2 and Class 3.1 PAL. Approximately 9 km of the southern section of the OHL in



Section A, located between the proposed 400 kV Emmock substation and Hayston, would cross agricultural land of lower classifications. Approximately 5 km of the northern section of the Proposed Development in Section A between Hayston and west of Nether Drumgley would cross some areas of Class 2 and Class 3.1 PAL (see **Volume 3**, **Figures 7.1.1 and 7.1.2: Land Capability for Agriculture)**.

- 7.4.3 The Proposed Development would cross five Core Paths:
 - the Kirkton of Tealing to Balnuith Core Path would be crossed by an access track between Balnuith Farm and the existing Tealing Substation;
 - the Kirkton of Auchterhouse to Balluderon Core Path would be crossed by an access track to the west of North Balluderon;
 - the Prieston to Glen Ogilvie Core Path would be crossed by the OHL to the east of Prieston Hill and to the north of Coldstream;
 - the Jericho Core Path would be crossed by the OHL to the west of Nether Hayston; and
 - the Drumgley to Glamis Station Core Path would be crossed by the OHL to the east of Haughs of Cossans Cottage.
- 7.4.4 The Proposed Development would cross the following public RoW:
 - TC/TA34/1 to the west of North Balluderon would be crossed by an access track;
 - TC/TA31/1 to the north of Coldstream to the east of Craigowl Hill would be crossed by the OHL; and
 - TA/TA156/1 between Nether Drumgley and Haughs of Cossans would be crossed by the OHL.
- 7.4.5 Section A of the Proposed Development would oversail the Kerbet Water and Dean Water, both of which are small rivers used for recreational fishing. The Kerbet Water would be spanned to the northwest of Douglastown. The Dean Water would be spanned to the southeast of Haughs of Cossans.
- 7.4.6 See Volume 3, Figures 7.2.1 and 7.2.2: Recreational Assets for recreational assets in Section A, and Volume 3, Figures 13.2.1 to 13.2.26: Hydrology, Flood Risk and Buffers for further details of the watercourses.
- 7.4.7 The majority of larger settlements (defined as towns and villages with a population of over 500 inhabitants) are located over 1 km from the Proposed Development. The nearest larger settlements to the Proposed Development in Section A are:
 - Dundee, a city with an estimated population of 148,000 located approximately 2.8 km south; and
 - Tealing, a village with an estimated population of just over 500 located approximately 1.8 km east.

Section B

- 7.4.8 Within Section B the majority of the Proposed Development would cross PAL, mostly Class 3.1. Smaller areas of Class 2 PAL and land of lower classifications would also be crossed; these areas are generally located to the west of Forfar, to the northwest of Padanaram, around the River South Esk and the Noran Water (see **Volume 3, Figures 7.1.2** and 7.1.3: Land Capability for Agriculture).
- 7.4.9 The Proposed Development within Section B would not cross any Core Paths, although it would cross three RoW:
 - TA/TA156/1 between Nether Drumgley and Haughs of Cossans would be crossed by an access track;
 - TA/TA154/1 to the north of Padanaram would be crossed by the OHL and an access track; and
 - TA/TA151/1 would be crossed by an access track to the south of Forestmuir Wood.
- 7.4.10 In Section B the River South Esk is an important recreational fishing resource and a key fishery primarily for sea trout but also Atlantic salmon. The Proposed Development would oversail the River South Esk near to the Inshewan Weir to the west of the settlement of Oathlaw where the riverbanks are relatively steeply sloping and wooded. The OHL would also span the Noran Water, a tributary of the River South Esk in a steeply wooded gorge near Noranside.
- 7.4.11 See Volume 3, Figures 7.2.2 and 7.2.3: Recreational Assets for recreational assets in Section B, and Volume 3, Figures 13.2.1 to 13.2.26: Hydrology, Flood Risk and Buffers for further details of the watercourses.



- 7.4.12 The majority of larger settlements (defined as towns and villages with a population of over 500 inhabitants) are located over 1 km from the Proposed Development. The nearest larger settlements to the OHL in Section B are:
 - Forfar, a town with an estimated population of 16,000 located approximately 2 km east; and
 - Kirriemuir, a town with an estimated population of 6,000 located approximately 3 km west.

Section C

- 7.4.13 Within Section C, the Proposed Development would cross a number of areas of agricultural land categorised as PAL. Approximately 2 km of the southern section, between West Hill and Nether Belliehill, would cross Class 2 and Class 3.1 PAL. The central section would intersect with PAL Class 3.1 and some areas of land with lower classifications between Auchenreoch to Luthermuir. Between Luthermuir and Pitnamoon in the northern section, the Proposed Development would cross mostly Class 3.1 PAL (see Volume 3, Figures 7.1.3 and 7.1.4: Land Capability for Agriculture).
- 7.4.14 The Proposed Development in Section C would cross the following Core Paths:
 - the Edzell to Westside Core Path would be crossed by an access track to the southeast of Edzell Wood.
- 7.4.15 The Proposed Development in Section C would cross the following RoW:
 - TA/TA171/1 between north of Brechin to Auchenreoch would be crossed by access tracks, to the south of Auchenreoch House; and
 - TA/TA185/1 to the south of Edzell Wood would be crossed by access tracks.
- 7.4.16 Section C of the Proposed Development would oversail the River North Esk. The Scottish Government has identified the River North Esk as "the most productive salmon river in Scotland, yard for yard"²⁴, Marine Scotland operate a fish counter. The river is an important recreational fishing resource for salmon and sea trout. The river would be spanned by the Proposed Development to the north of Stracathro. The OHL would also span the West Water, a tributary of the River North Esk near Inchbare, approximately 2 km upstream of the confluence of the watercourses. Both river crossing areas are on relatively flat land with wooded riverbanks. Given the proximity of the West Water's confluence with the River North Esk in the vicinity of the proposed OHL crossings, it is of similar character and importance for recreational fishing as the main river.
- 7.4.17 The Proposed Development's LOD and OHL centreline would oversail the airstrip at Gossesslie Airfield which lies to the east of Edzell. Towers would be located to the south and north of the airstrip and the OHL (LOD centreline) would run north to south over the middle of the airstrip.
- 7.4.18 See Volume 3, Figures 7.2.3 and 7.2.4: Recreational Assets for recreational assets in Section C, and Volume 3, Figures 13.2.1 to 13.2.26: Hydrology, Flood Risk and Buffers for further details of the watercourses.
- 7.4.19 The majority of larger settlements (defined as towns and villages with a population of over 500 inhabitants) are located over 1 km from the Proposed Development. The nearest larger settlements to the OHL in Section C are:
 - Brechin, a town with an estimated population of 7,000 located approximately 2.8 km to the southeast;
 - Edzell, a village with an estimated population of 840 located approximately 2 km to the north; and
 - Laurencekirk, a small town with an estimated population of 3,000 located 2.2 km to the southeast.

Section D

7.4.20 Within Section D, the Proposed Development would run through the Howe of the Mearns, an agricultural area where the soils are mostly classified as Class 2 PAL. Approximately 6 km of the southern section of the Proposed Development, between Pitnamoon and Monboddo, would cross predominantly Class 2 PAL, interspersed with Class 3.1 PAL and lower land classifications. In the northern section, approximately 11 km would predominantly intersect

²⁴ Esk Rivers & Fisheries Trust District Salmon Fishery Board. [Online] Available at: https://eskriversangus.uk/river-north-esk/.



with areas of lower land classifications interspersed with some small areas of Class 3.1 land between Monboddo and the proposed 400 kV Hurlie substation (see **Volume 3**, **Figures 7.1.4 and 7.1.5**: **Land Capability for Agriculture**).

- 7.4.21 The Proposed Development would cross one Core Path:
 - the Fordoun to Monboddo Link Road would be crossed by the OHL and by access tracks between Fordoun and Auchenblae and to the north of the Woods of Redhall.
- 7.4.22 The Proposed Development would cross or run adjacent to the following RoW:
 - SHT(6) 197 between Glenbervie and Milton Dellavaird would be crossed by the OHL; and
 - an access track would follow the same route as GK/GK67/1.
- 7.4.23 Section D of the Proposed Development would oversail the Bervie Water which is a salmon fishery and used for recreational fishing. The OHL would span the river to the west of the settlement of Glenbervie in a narrow and steeply sloping valley.
- 7.4.24 The Proposed Development's LOD would cut across the southern half of the area used as an airstrip at Fordoun Airfield which lies north of Fordoun. Towers would be located to the southwest, south and east of the airstrip and the OHL (LOD centreline) would run over the southern end of the airstrip. In addition, the Proposed Development's LOD and OHL centreline would run mostly in parallel to (to the south of) Laurencekirk Airstrip which lies to the north of Laurencekirk and southeast of Fordoun Airfield. The LOD would intersect the southern and northern ends of the airstrip.
- 7.4.25 See Volume 3, Figures 7.2.4 and 7.2.5: Recreational Assets for recreational assets in Section D, and Volume 3, Figures 13.2.1 to 13.2.26: Hydrology, Flood Risk and Buffers for further details of the watercourses.
- 7.4.26 The majority of larger settlements (defined as towns and villages with a population of over 500 inhabitants) are located over 1 km from the Proposed Development. The nearest larger settlements to the OHL in Section D are:
 - Auchenblae, a village with an estimated population of just over 500 located approximately 1.5 km north.

Section E

- 7.4.27 The majority of the Proposed Development in Section E would cross land of lower agricultural classifications. One small area of PAL (Class 3.1) would be crossed by the Proposed Development between the River Dee and the settlement of Kirkton of Durris (see **Volume 3**, **Figures 7.1.5 and 7.1.6**: **Land Capability for Agriculture**).
- 7.4.28 The Proposed Development would cross one NCN:
 - the NCN Route 195 would be crossed to the north of the River Dee (the Deeside Way) between Drumoak and Banchory, NCN Route 195 is also designated as a Core Path and Heritage Path.
- 7.4.29 Section E of the Proposed Development would oversail the Cowie Water and the River Dee. The River Dee is one of Scotland's key fishing resources for Atlantic salmon fishing as well as sea trout and is an important recreational resource for fishing. The Proposed Development would span the River Dee to the north of Kirkton of Durris where the river is relatively wide and flows through an area of flat land with heavily wooded riverbanks. The Cowie Water is a small river with a salmon fishery which is used for recreational fishing. It would be spanned by the OHL just west of the settlement of Mergie in an area with steeply sloping and wooded valley sides.
- 7.4.30 See Volume 3, Figures 7.2.5 and 7.2.6: Recreational Assets for recreational assets in Section E, and Volume 3, Figures 13.2.1 to 13.2.26: Hydrology, Flood Risk and Buffers for further details of the watercourses.
- 7.4.31 The majority of larger settlements (defined as towns and villages with a population of over 500 inhabitants) are located over 1 km from the Proposed Development. The nearest larger settlements to the OHL in Section E are:
 - Stonehaven, a town with an estimated population of 11,600 located approximately 5.1 km east.



Section F

- 7.4.32 The majority of the Proposed Development in Section F would cross land of lower agricultural land classifications.

 Two small areas of PAL (Class 3.1) would be crossed by the Proposed Development between the Loch of Park and Drumoak (see **Volume 3, Figure 7.1.6: Land Capability for Agriculture**).
- 7.4.33 The Proposed Development would intersect with one Core Paths:
 - an access track will partially follow the same route as the Echt to North Kirkton Woods Core Path.
- 7.4.34 The Proposed Development would not intersect with any key rivers used as recreational fisheries.
- 7.4.35 The majority of larger settlements (defined as towns and villages with a population of over 500 inhabitants) are located over 1 km from the Proposed Development. The nearest larger settlements to the OHL in Section F are:
 - Drumoak, a village an estimated population of 950 is located approximately 1 km east;
 - Banchory, a town with an estimated population of 7,400 located approximately 4.5 km to the west;
 - Peterculter, a suburb of Aberdeen with an estimated population of 4,400 is located approximately 5.7 km east;
 - Westhill, a town with an estimated population of 12,100 is located approximately 5.7 km to the east;
 - Kemnay, a town with an estimated population of 4,500 located approximately 3.2 km to the northwest; and
 - Kintore, a town with an estimated population of 4,900 is located approximately 1.8 km to the north.
- 7.4.36 Echt, a village with an estimated population of 300 is located approximately 730 m to the west, and Dunecht a village with an estimated population of 500 is located approximately 500 m to the east.

Future Baseline in the Absence of the Proposed Development

- 7.4.37 The Angus and Aberdeenshire Council's LDPs^{7&8} identify land for future development, such as housing and employment land within the respective Council areas, as well as setting out policies to protect certain areas and land uses such as ecological designations. Generally, the current LDPs seek to protect PAL along with other land uses such as woodland and areas of peat, habitats and floodplains. The Proposed Development would not affect areas identified for potential future development within Angus Council's LDP area. Within Aberdeenshire Council's LDP area, the Proposed Development would intersect the following areas designated for potential future development:
 - two areas designated as Strategic Growth Areas from Laurencekirk to west of Stonehaven, as well as to the south of Kintore; and
 - the western edge and area to the north of Fordoun designated as Existing Employment Land.
- 7.4.38 In the absence of the Proposed Development it is likely that the land would continue to be used as described in this Chapter with the designated potential future development areas built out as set out in the LDPs.

Implications of Climate Change for Baseline Conditions

- 7.4.39 The *UK Climate Change Predictions 2018* (UKCP18²⁵) for Scotland predict that summers will see an increase in temperatures with a decrease in rainfall, whilst winters will see an increase in frequency and quantity of rainfall, as well as an increase in frequency of storms. Additionally, surface wind speeds are expected to increase with winter months experiencing the more significant effects of winds.
- 7.4.40 Climate change and technological developments are already affecting farming and fishing land uses in the area and are likely to continue to affect future land use and land management practices across the region. The predicted climate changes are likely to result in some changes to the vegetation assemblages in the wider landscape as well as the crops and livestock farmed. Changes to weather patterns may reduce some agricultural yields, and possibly improve others. As temperatures rise, the suitability of certain crops and livestock breeds may change, requiring farmers to adapt their practices. While changes to land use are likely in Angus and Aberdeenshire Council areas due

²⁵ Met Office *UK Climate Projections (UKCP)*. [Online] Available at: https://www.metoffice.gov.uk/research/approach/collaboration/ukcp/index.



to climate change, Scottish Government policy is to protect PAL and soil health in general, and support farmers in adapting to climate change 26. Farming is likely to continue to be the dominant land use in the area in the future.

7.5 **Mitigation and Monitoring**

7.5.1 The design development undertaken for the Proposed Development sought to avoid high sensitivity land uses and receptors to the extent feasible, such as residential properties, PAL, commercial forestry, key recreational sites, as well as environmental designations and planning developments; see Embedded Mitigation below for further details. Measures will also be applied as standard practice during construction to further avoid and minimise effects on land use, see Applied Mitigation below.

Embedded Mitigation

- LU1: Embedded mitigation measures are the measures that were applied throughout the Proposed Development's 7.5.2 iterative corridor, routeing and alignment design development processes to avoid and minimise environmental impacts. Each design development stage considered a number of options in increasing detail and resolution, bringing technical, economic and environmental considerations together. The approach followed SSEN Transmission's guidance Procedures for Routeing Overhead Lines and Underground Cables of 132 kV and above 27. This guidance supports the option selection and appraisal process through a number of stages:
 - 1. Stage 0: Routeing Strategy Development;
 - 2. Stage 1: Corridor Selection;
 - 3. Stage 2: Route Selection; and
 - 4. Stage 3: Alignment Selection.
- 7.5.3 The systematic environmental appraisal at each of these stages included the consideration of land use, along with people, natural heritage, cultural heritage, landscape and visual and planning. The land use appraisal included criteria for agriculture, forestry and recreation with the aim of identifying areas of highest sensitivity and least constraint; PAL was a key aspect in these appraisals. Recognition of Government and Planning Policy ensured that these constraints were key to the development process, along with consultation with statutory and non-statutory consultees, local communities and landowners.
- 7.5.4 Volume 1, Chapter 4: Alternatives and the Routeing Process sets out the details of the constraints and alternatives considered at each stage of the project and summarises the appraisal findings. Chapter 4 demonstrates the locational need for the route of the Proposed Development.

Applied Mitigation

- 7.5.5 SSEN Transmission is committed to the implementation of Applied Mitigation. Applied Mitigation relates to good practice measures that will be implemented during enabling works, construction, restoration and commissioning to avoid and minimise impacts on land uses and land users including farmers, residents and visitors to the area. Applied Mitigation includes SSEN Transmission standard environmental management requirements, as well as industry-wide standards that are well understood by local authorities and regulators and which are generally accepted as being effective in reducing impacts from disruption when implemented fully. The EIA Scoping process for this land use assessment assumed that such measures would be implemented which enabled a number of land use impacts to be scoped out.
- Applied Mitigation includes a commitment to the implementation of SSEN Transmission's General Environmental 7.5.6 Management Plans (GEMPs) and a Construction Environmental Management Plan (CEMP) which will be implemented during the construction works. These plans will set out detailed measures to be followed by all site staff, contractors and sub-contractors to ensure impacts from the Proposed Development are avoided and minimised prior

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²⁶ Scottish Government, n.d. Agriculture and climate change. [Online] Available at: https://www.gov.scot/policies/agriculture-andthe-environment/agriculture-and-climate-change/.

²⁷ SSEN Transmission, 2018. Procedures for Routeing Overhead Lines of 132kV and above (updated in September 2020 to include underground cables of 132 kV and above). PR-NET-ENV-501.



- to, during and following construction. The detailed CEMP will be prepared by the Principal Contractors and will require approval by SSEN Transmission and the relevant local authorities. Further details are set out in **Table 7.4: Applied Mitigation, G1 and G2.**
- 7.5.7 At the time of construction some post-consent refinements may be made to further minimise impacts through micrositing the towers and access tracks within the LOD; for example, siting access tracks around the edges of fields. Any proposed changes to the final locations of towers and tracks would be reviewed as part of a thorough change control process to ensure that all relevant constraints were considered.
- 7.5.8 An Enhanced Construction Traffic Management Plan (CTMP) will also be implemented to ensure the impacts of construction traffic are carefully managed throughout the construction period, and an Outdoor Access Management Plan (OAMP) will be prepared, building on the detail of the outline OAMP appended to this Chapter, to ensure access to outdoor facilities will be safely maintained. These plans will be prepared by the Principal Contractors and approved by SSEN Transmission and the relevant local authorities. Statutory procedures will be complied with where roads or access routes need to be closed or diverted temporarily. Further details on the OAMP are set out in **Table 7.4**:

 Applied Mitigation, LU2 and in Volume 5, Appendix 7.1: Outline Outdoor Access Management Plan.
- 7.5.9 Land used temporarily for construction will be restored to its original use. Following construction, agricultural land not required permanently (including areas used temporarily for drainage works) will be reinstated to ensure it can return to its existing agricultural use where this is the agreed end use. A Site Restoration Plan will be prepared by the Principal Contractors which will include measures to manage, store and protect soil during construction and restore landform, habitats and vegetation which have been disturbed as a result of the Proposed Development. Further details are set out in **Table 7.4: Applied Mitigation, G4.**
- 7.5.10 Biosecurity measures will be a key aspect of all site works in order to limit the risk of the spread of invasive species, pests and soil borne diseases in particular Potato Cyst Nematode (PCN) and Clubroot which can be carried between farms by site personnel and vehicles. Further details are set out in **Table 7.4: Applied Mitigation, G1 and G2.**
- 7.5.11 Effects on farm businesses and farm operations from the Proposed Development will be addressed by SSEN Transmission directly via their compensation process and in light of ongoing consultations with land managers, a separate Socio-economic Assessment⁵ has been included as part of the Section 37 application.
- 7.5.12 The key Applied Mitigation measures relevant to land use are set out in Table 7.4: Applied Mitigation below; see Volume 2, Chapter 17: Schedule of Mitigation for full details. These plans will be secured as conditions of the Section 37 Consent and will form part of the Principal Contract between SSEN Transmission and the Principal Contractors.

Table 7.4: Applied Mitigation



Miti	aati	on Measures	Project Stage/Timing	Responsibility
WITE	gati	GEMP: Dust Management;	1 Toject Stage/Tilling	Responsibility
	_	GEMP: Biosecurity (on Land);		
	_	GEMP: Restoration; and		
	_	GEMP: Restoration, and		
See	- Vol	ume 5, Appendix 3.2: General Environmental		
Mar	nage	ment Plans (GEMPs) and Species Protection Plans for more information.		
•	G2:	Construction Environmental Management Plan (CEMP)	Pre-construction	Principal
		paration and implementation of a CEMP will be required ch will include relevant provisions such as:	During construction Operation	Contractors Relevant Sub-
	-	utilisation of field margins/boundaries for siting of temporary working areas to minimise fragmenting productive land, where feasible, in areas where agricultural land cannot be avoided altogether;	Decommissioning	Contractors
	-	implementation of site-specific and risk-assessed biosecurity measures to limit the risk of the spread of invasive species, pests and soil borne diseases;		
	_	continuing engagement and meetings with landowners or their agents to ensure that disruption to farming and land management activities are kept, where feasible, to a minimum;		
	_	land will be inspected, and a detailed record of its condition noted prior to works commencing, including private roads, gateways and fences so that it is reinstated to its pre- construction condition;		
	-	measures will be taken to prevent the disturbance of livestock. In the interests of security all field gates will be kept shut unless otherwise requested. If any fences are removed, they will be replaced, as appropriate; and		
	-	where required, crossing points will be installed and maintained in suitable places in order that livestock and farm vehicles can maintain access during construction.		
		ume 5, Appendix 3.4: Outline Construction Imental Management Plan (CEMP) for more information.		
•	G4:	Restoration and Reinstatement	Pre-construction	Principal
	Res faci whi	paration and implementation of a site-specific Site storation Plan will be required which will include measures to litate the restoration of landform, habitats and vegetation ch have the potential to be disturbed as a result of the posed Development.	During construction Operation	Contractors Relevant Sub- Contractors
	grad faci	ing the construction phase, disturbed peat, soils or sub- de materials will be carefully extracted and stored in order to litate successful restoration. In order to achieve this the owing steps and principles will be adhered to:		
	-	identification and separation of topsoil/vegetated 'acrotelmic' peat, from subsoil/lower 'catotelmic' peat, and other sub-grade material;		
	-	storage of separate stockpiles identified within the pre- construction phase. Soil will be stored within the working area for each element of the work during construction;		
	-	excavation of whole, intact turves where possible and storage with the vegetated side facing up;		
	-	avoidance of double handling of materials where possible;		
	_	stockpiles will be no greater than 2 m in height to prevent		
		compaction; protection of stockpiles from construction plant or		



Mitiga	tion Measures	Project Stage/Timing	Responsibility
-	monitoring of stored materials to ensure that they do not dry out and watering where necessary; and		
_	avoidance of work during unsuitable weather conditions including heavy rain, strong winds or periods of frozen ground.		
re or re	ne general principles for reinstatement involve the placement of the excavated subsoil, then topsoil in the correct der in which they were excavated. This will ideally involve the placement of fully intact turves on the surface. The following inciples will be observed during this phase:		
_	reinstatement will occur as soon after excavation works as possible, in order to minimise the storage period, which could result in the drying out of materials;		
_	reforming of the sub-grade material to reflect landform and patterns of adjacent areas, prior to the replacement of peat or topsoil;		
_	as far as possible, the creation of slopes at gradients suitable for the placement of soils/peat and where necessary, suitable slope stabilisation measures to assist revegetation and prevent erosion;		
_	where there are insufficient turves, the ground will be required to vegetate naturally;		
_	replacement of soils/peat in the correct horizons, as close as possible to the area of excavation;		
_	avoidance of compaction of soil or peat;		
_	replacement of peat, limited to areas disturbed during the works;		
-	adoption of a phased approach to avoid tracking back or disturbing areas previously reinstated; and		
_	a preference for natural regeneration of vegetation wherever possible, however some seeding may be required to stabilise sites and prevent erosion, or where landowner requirements dictate otherwise.		
	olume 5, Appendix 3.3: Outline Site Restoration Plan for information.		
• Ll	J2: Outdoor Access Management Plan (OAMP)	Pre-construction	Principal
Pr wl pu	reparation and implementation of an OAMP will be required nich will include measures for the management of existing ablic access during the construction and operation of the roposed Development. Measures will include:	During construction Operation Decommissioning	Contractors Relevant Sub- Contractors
_	during construction, access into the area where the OHL towers are to be located will be restricted for the general public on health and safety grounds;		
_	access gates will be installed in certain locations along access tracks to limit unauthorised vehicles from entering the Site;		
_	there may be the requirement for temporary closures or diversions of part of recreational routes. These will be discussed with the planning authorities and permissions secured where required. Route crossing points with signage advising on construction activity (plant, vehicles, and machinery) and the temporary changes to baseline access provision will be installed as required;		
_	there may be the need for consideration of temporary traffic lights/temporary management systems;		
_	route users will have the right of way;		
_	it may be deemed appropriate to provide separate plant and pedestrian areas (for example including Heras fencing as a barrier);		

Mitigation Measures	Project Stage/Timing	Responsibility
 temporary vehicle restraint systems will be considered for higher risk areas to provide additional protection to route users if construction works will be undertaken whilst the paths remain open; 		
 there will be enforcement of speed limits on tracks for all construction vehicles and plant; 		
 speed limit advisory signage will be included on the exit of the Site access tracks to remind drivers of local speed limits; 		
 use of hazards, flashing beacons on all construction vehicles when using access tracks will be enforced; 		
 there will be regular delivery of Toolbox Talks to all site workers to ensure awareness of potential presence of path users; and 		
 specific training will be given to drivers on the protocols when encountering horse riders to increase awareness and to ensure safety of these users. 		
An outline OAMP has been included as Volume 5, Appendix 7.1: Outline Outdoor Access Management Plan. This includes a British Horse Society Scotland guidance leaflet for drivers of large vehicles as Annex 2.		

Further Survey Requirements and Monitoring

7.5.13 Following construction, land that is not required for permanent infrastructure will be restored to the original use, and therefore no further survey requirements or monitoring has been identified for PAL. Recreational fishing activities in the vicinity of OHL crossing points on the Rivers South Esk, North Esk and Dee will be monitored by the owners of the fisheries to determine the effectiveness and ongoing requirement for fishing exclusion zones.

7.6 Assessment of Likely Significant Effects

Prime Agricultural Land

7.6.1 The assessment of PAL considers the permanent land take only. As noted in Section 7.2 the areas of land take presented in this Chapter are based on an average worst-case scenario OHL tower base area of 272.5 m² and a track width of 4.5 m. The tower and access track locations and PAL classifications are shown on Volume 3, Figures 7.1.1 to 7.1.7: Land Capability for Agriculture. Table 7.5: Prime Agricultural Land (PAL) Impacted by the Proposed Development sets out the total number of OHL towers and permanent access tracks that are located on PAL within each Section A-F as well as in aggregate, and the worst-case area (in hectares) of PAL predicted to be impacted.

Table 7.5: Prime Agricultural Land (PAL) Impacted by the Proposed Development

Section	PAL Classes Impacted	Proposed Development – Number of Towers and Permanent Access Tracks	Predicted Worst-case PAL Land Take
Α	Class 2	Towers (Class 2): 3	Class 2: 0.08 ha
	Class 3.1	Towers (Class 3.1): 7	Class 3.1: 0.19 ha
		Access Tracks (Class 2): 0	Total: 0.27 ha
		Access Tracks (Class 3.1): 0	
		Total Towers: 10	
		Total Access Tracks: 0	
В	Class 2	Towers (Class 2): 9	Class 2: 0.25 ha
	Class 3.1	Towers (Class 3.1): 42	Class 3.1: 2.0 ha
		Access Tracks (Class 2): 0	Total: 2.25 ha
		Access Tracks (Class 3.1): 4	
		Total Towers: 51	
		Total Access Tracks: 4	



Section	PAL Classes Impacted	Proposed Development – Number of Towers and Permanent Access Tracks	Predicted Worst-case PAL Land Take
С	Class 2 Class 3.1	Towers (Class 2): 21 Towers (Class 3.1): 19 Access Tracks (Class 2): 2 Access Tracks (Class 3.1): 1 Total Towers: 40 Total Access Tracks: 3	Class 2: 0.68 ha Class 3.1: 0.72 ha Total: 1.40 ha
D	Class 2 Class 3.1	Towers (Class 2): 18 Towers (Class 3.1): 10 Access Tracks (Class 2): 1 Access Tracks (Class 3.1): 3 Total Towers: 28 Total Access Tracks: 4	Class 2: 0.56 ha Class 3.1: 0.47 ha Total: 1.03 ha
Е	None	N/A	N/A
F	Class 3.1	Towers (Class 2): 0 Towers (Class 3.1): 1 Access Tracks (Class 2): 0 Access Tracks (Class 3.1): 0 Total Towers: 1 Total Access Tracks: 0	Class 3.1: 0.03 ha Total: 0.03 ha
Total Sections A - F	Class 2 Class 3.1	Towers (Class 2): 51 Towers (Class 3.1): 79 Access Tracks (Class 2): 4 Access Tracks (Class 3.1): 8 Total Number of Towers in PAL: 130 Total Number of Access Tracks in PAL: 12	Class 2: 1.56 ha Class 3.1: 3.41 ha Total: 4.97 ha

Predicted Significant Effects on Prime Agricultural Land

- 7.6.2 The assessment of effects on PAL identified above in Table 7.5: Prime Agricultural Land (PAL) Impacted by the Proposed Development show that the Proposed Development would result in the loss of approximately 1.56 ha of Class 2 PAL, and approximately 3.41 ha of Class 3.1 PAL. No Class 1 PAL would be impacted. Overall, the Proposed Development would result in the total loss of approximately 4.97 ha of PAL.
- 7.6.3 PAL is a resource of High sensitivity. Applying the criteria set out in this Chapter (see **Tabe 7.2**: **Criteria for Magnitude of Change**) the loss of 4.97 ha of PAL equates to a Negligible magnitude of change. The Proposed Development would therefore have an overall **Negligible** effect on PAL, which is **Not Significant**.
- 7.6.4 As set out in the assumptions in **Section 7.3** this assessment is based on conservative average areas of land take for the tower bases and permanent access tracks, it is expected that the actual loss of PAL to the Proposed Development would be less than 4.97 ha.
- 7.6.5 As noted in **Section 7.3** national and local planning policy support the development of essential infrastructure such as the Proposed Development on land classified as PAL where there is a specific locational need and no other suitable site, and where the layout and design of the proposal minimises the amount of protected land that is required. The OHL corridor and route optioneering and selection process (as discussed in **Section 7.5**) was thorough and it demonstrates that there is a specific locational need for the Proposed Development as presented and assessed in this EIAR, and that the Proposed Development's iterative layout and design process aimed to ensure that the impact on land classified as PAL, along with other sensitive land uses, was minimised as far as possible.



Impact on Prime Agricultural Land in Context

- 7.6.6 It is estimated that within Scotland, the overall area of PAL is approximately 455,456 ha (4,318 ha of Class 1, 109,058 ha of Class 2 and 342,080 ha of Class 3.1). From a regional perspective, it is estimated that within Angus the area of PAL is approximately 70,462 ha (1,261 ha of Class 1, 19,063 ha of Class 2 and 50,139 ha of Class 3.1), and in Aberdeenshire the PAL area is approximately 49,858 ha (8,801 ha of Class 2 and 41,057 ha of Class 3.1)²⁸.
- 7.6.7 The Proposed Development would therefore affect approximately 0.004% of the region's (Aberdeenshire and Angus combined areas) PAL resource, and approximately 0.001% of Scotland's PAL resource. In this context, the permanent infrastructure of the Proposed Development would have a negligible impact on Scotland's PAL resource overall.
 - Additional Mitigation for Prime Agricultural Land
- 7.6.8 The loss of 4.97 ha of PAL would occur during the construction phase and would be direct, adverse and permanent.

 There are no measures available to mitigate the permanent loss of PAL for the Proposed Development.
- 7.6.9 The residual effect of the Proposed Development on PAL would be **Negligible** which is **Not Significant.**

Recreational Airfields

7.6.10 Volume 3, Figures 7.2.1 to 7.2.7: Recreational Assets and the Aviation Impact Assessment set out in Volume 5, Appendix 7.2: Aviation Impact Assessment show the location of the recreational airfields along with the Proposed Development, Volume 3, Figures 3.1.1 to 3.1.29 Proposed Development for which Section 37 Consent (Electricity Act, 1989) is sought show the Proposed Development in more detail.

Predicted Significant Effects on Recreational Airfields

- 7.6.11 The Proposed Development's LOD and OHL would oversail the middle of the airstrip at Gossesslie Airfield. The airfield is of High sensitivity. Towers would be located to the south and north of the airstrip and the OHL (and associated LOD) would run north to south directly over the middle of the airstrip. The aviation risk level in the Aviation Impact Assessment is reported as High and the Proposed Development is predicted to have a significant adverse effect on operations at the airfield.
- 7.6.12 The Proposed Development's LOD would intersect the southern and northern ends of the airstrip at Laurencekirk Airstrip. The airstrip is of High sensitivity. Towers would be located to the south of the airstrip and the LOD would clip the southern and northern ends of the airstrip. The aviation risk level is reported as High and the Proposed Development is predicted to have a significant adverse effect on operations at the airstrip.
- 7.6.13 The Proposed Development's LOD intersects the southern half of the airstrip at Fordoun Airfield. The airfield is of High sensitivity. Towers would be located to the southwest and east of the airstrip and the OHL would potentially clip the southern end of the airstrip. The aviation risk level is reported as High and the Proposed Development is predicted to have a significant adverse effect on operations at the airfield.
- 7.6.14 The effect of the Proposed Development in land use terms on Gossesslie Airfield, Laurencekirk Airstrip and Fordoun Airfield is considered **Major** which is **Significant** due to their High sensitivity and the predicted High magnitude of change. The impact of the Proposed Development on these three recreational airfields would occur during the construction phase and would continue through operation, impacts would be direct, adverse and permanent.

Additional Mitigation for Recreational Airfields

7.6.15 SSEN Transmission is in liaison with the owners and operators of Gossesslie Airfield, Laurencekirk Airstrip and Fordoun Airfield regarding the impacts on their operations. Liaison with the airfields will continue to confirm the airfield operators' position in relation to the Proposed Development.

Kintore to Tealing 400 kV OHL: EIAR Volume 2, Chapter 7: Land Use and Prime Agricultural Land

²⁸ This information has been calculated based on the publicly available data from Scotland's Soils¹ and local authority administration boundaries.



7.6.16 As liaison with the owners and operators of the airfields continues the reported residual effect of the Proposed Development on recreational airfields is assessed on a conservative worst-case basis as **Significant (Major)**.

Recreational Fisheries

7.6.17 **Volume 3, Figures 7.2.1 to 7.2.7: Recreational Assets** show the location of watercourses along with the Proposed Development, **Volume 3, Figures 3.1.1 to 3.1.29 Proposed Development for which Section 37 Consent** (*Electricity Act, 1989*) is sought show the Proposed Development in more detail.

Predicted Significant Effects on Recreational Fisheries

- 7.6.18 The Proposed Development would oversail the following key rivers which are used for recreational fishing:
 - Kerbet Water;
 - Dean Water;
 - · River South Esk;
 - River North Esk (including West Water);
 - Bervie Water;
 - Cowie Water; and
 - River Dee.
- 7.6.19 The OHL (and associated LOD) would cross these rivers and a fishing exclusion zone of 30 m either side of the OHL would be required to be applied in line with the ENA guidance to afford safety for people participating in fishing. As fisheries tend to be several kilometres in length, the loss of up to approximately 80 m²⁹ to an exclusion zone is unlikely to have a major impact on the recreational use of a fishery overall. The magnitude of change in recreational land use terms on each fishery is considered to be Low.
- 7.6.20 The overall effect of the Proposed Development in land use terms on recreational fisheries on the Kerbet Water, Dean Water, Bervie Water and Cowie Water is considered **Minor** which is **Not Significant**, this is based on their Medium sensitivity and a Low magnitude of change.
- 7.6.21 The overall effect of the Proposed Development in land use terms on recreational fisheries on the River South Esk, River North Esk (including West Water) and the River Dee is predicted to be **Moderate** which is **Significant**. This is based on their High sensitivity and a Low magnitude of change. The impact of the Proposed Development on the recreational fishing resources in these rivers would occur during the construction phase and would continue through operation of the OHL, impacts would be direct, adverse and permanent.
 - Additional Mitigation for Recreational Fisheries
- 7.6.22 SSEN Transmission is in liaison with the owners and operators of all affected fisheries with the aim of identifying mitigation measures. Liaison with fishery owners and operators affected on the River North Esk, River South Esk and the River Dee will continue to confirm their position in relation to the Proposed Development. Other additional mitigation options could include river, habitat or access improvements that would offset or compensate for the effects on affected fisheries.
- 7.6.23 As liaison with the owners and operators of affected fisheries continues and mitigation has not yet been agreed the reported residual effect of the Proposed Development on recreational fisheries on the River North Esk, River South Esk and the River Dee is assessed on a conservative worst-case basis as **Significant (Moderate)**.

Kintore to Tealing 400 kV OHL: EIAR

²⁹ The total exclusion zone would be approximately 80 m taking into account the width between the two sets of OHL conductors plus the 30 m exclusion zones either side.



7.7 Assessment of Residual Cumulative Effects

Introduction

7.7.1 Predicted residual adverse effects on PAL, recreational airfields and recreational fisheries arising from the Proposed Development have the potential to contribute to cumulative effects when considered alongside other proposed developments.

Findings of the Cumulative Assessment

- 7.7.2 The potential for significant cumulative land use effects from the Proposed Development was considered with reference to two groups of reasonably foreseeable developments see Volume 1, Chapter 5: EIA Process and Methodology for further details. Effects from the Proposed Development on PAL, recreational airfields and recreational fisheries occur during the construction phase and would continue throughout the operational phase. Therefore, the findings presented for the construction stage should also be taken to represent the permanent cumulative effects predicted from installation of the OHL.
- 7.7.3 The assessments are presented in the following tables:
 - Table 7.6: Cumulative Assessment: Intra (Associated) Developments (SSEN Transmission Developments
 Required to Connect the Proposed Development) provides a cumulative assessment of the Proposed
 Development with the Intra (Associated) Developments defined in Volume 1, Chapter 5: EIA Process and
 Methodology. These are the substation proposals at Emmock and Hurlie which would be directly connected
 with the Proposed Development.
 - Table 7.7: Cumulative Assessment: Inter Developments (Other SSEN Transmission Developments and Third Party Developments) provides a cumulative assessment of the Proposed Development and Intra (Associated) Developments together with cumulative effects predicted from other reasonably foreseeable SSEN Transmission and third party developments (collectively referred to as Inter Developments) as defined in Volume 1, Chapter 5: EIA Process and Methodology.
- 7.7.4 A brief commentary is provided following **Table 7.7** on the predicted cumulative effects of the Proposed Development in combination with the Intra and Inter projects considered in this assessment.

Table 7.6: Cumulative Assessment: Intra (Associated) Developments (SSEN Transmission Developments Required to Connect the Proposed Development)

	Construction		
Project	PAL	Recreational Airfields	Recreational Fisheries
Emmock 400 kV substation SSEN Transmission Development	The Emmock 400 kV substation is not located on PAL. There is therefore no likely significant cumulative effect predicted.	The Emmock 400 kV substation is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	The Emmock 400 kV substation is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Hurlie 400 kV substation SSEN Transmission Development	The Hurlie 400 kV substation is not located on PAL. There is therefore no likely significant cumulative effect predicted.	The Hurlie 400 kV substation is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	The Hurlie 400 kV substation is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Overall Intra Cumulative Assessment Summary		The Proposed Development is not predicted to give rise to significant cumulative effects when combined with the Intra Developments as PAL, recreational airfields and recreational fisheries would not be affected by the Intra Developments.	



Table 7.7: Cumulative Assessment: Inter Developments (Other SSEN Transmission Developments and Third Party Developments)

	Construction		
Project	PAL	Recreational Airfields	Recreational Fisheries
Emmock and Tealing OHL Tie-Ins SSEN Transmission Development	These projects are not located on PAL. There is therefore no likely significant cumulative effect predicted.	These projects are not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	These projects are not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Alyth to Tealing 275 kV OHL Upgrade (to 400 kV) SSEN Transmission Development	No new infrastructure is to be constructed, no land take. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Tealing to Westfield 275 kV OHL Upgrade (to 400 kV) SSEN Transmission Development	No new infrastructure is to be constructed, no land take. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Fithie Energy Park Third Party Development	The project appears to be partially located on Class 3.1 PAL. The site overall is approximately 2.5 ha. The information available did not consider the loss to be significant and there are no land take details available. PAL possibly impacted; possible cumulative effects with the Proposed Development.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Balnuith Battery Energy Storage System (BESS) Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Myreton BESS Third Party Development	Project appears to be partially located on Class 3.1 PAL. The site overall is approximately 8 ha. There are no land take details available.	This project is not located within 3 km of a recreational airfield. There is therefore no likely	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant



	Construction		
Project	PAL	Recreational Airfields	Recreational Fisheries
	PAL possibly impacted; possible cumulative effects with the Proposed Development.	significant cumulative effect predicted.	cumulative effect predicted.
Ark Hill Wind Farm Extension Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee There is therefore no likely significant cumulative effect predicted.
Glendye Wind Farm Third Party Development	Project appears to be located on Class 3.1 PAL. Approximately 1 km of an access track. There are no land take details available. PAL possibly impacted; possible cumulative effects with the Proposed Development.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Laurencekirk Residential Development Third Party Development	Project appears to be partially located on Class 2 PAL. The site overall is approximately 12.5 ha. There are no land take details available. PAL possibly impacted; possible cumulative effects with the Proposed Development.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee There is therefore no likely significant cumulative effect predicted.
Glendye Wind Farm Grid Connection SSEN Transmission Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee There is therefore no likely significant cumulative effect predicted.
Fetteresso Wind Farm Grid Connection and Access Corridor Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee There is therefore no likely significant cumulative effect predicted.
Glenbervie BESS Third Party Development	Project appears to be partially located on Class 3.1 PAL. The site overall is approximately 3 ha	This project is not located within 3 km of a recreational airfield. There is therefore no likely	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee



	Construction		
Project	PAL	Recreational Airfields	Recreational Fisheries
	There are no land take details available. PAL possibly impacted; possible cumulative effects with the Proposed Development.	significant cumulative effect predicted.	There is therefore no likely significant cumulative effect predicted.
Quithel BESS Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Network Rail Drumlithie SSEN Transmission reasonably foreseeable development	Project appears to be partially located on PAL. There are no site boundary or land take details available. PAL possibly impacted; possible cumulative effects with the Proposed Development.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Fiddes 132 kV Grid Replacement SSEN Transmission reasonably foreseeable development	Project appears to be partially located on PAL. There are no site boundary or land take details available. PAL possibly impacted; possible cumulative effects with the Proposed Development.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
SSEN Transmission offshore grids project SSEN Transmission reasonably foreseeable development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Possible Future Wind Farm Connection SSEN Transmission reasonably foreseeable development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Onshore Transmission Infrastructure for Bowdun Offshore Wind Farm Third Party Development	Project appears to be partially located on PAL. There are no site boundary or land take details available. PAL possibly impacted; possible	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant



	Construction		
Project	PAL	Recreational Airfields	Recreational Fisheries
	cumulative effects with the Proposed Development.		cumulative effect predicted.
Craigneil Wind Farm Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Kintore to Craigiebuckler 132 kV OHL (existing) realignment (undergrounding) SSEN Transmission reasonably foreseeable development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Hill of Fare Wind Farm Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
South Leylodge Farm BESS Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Kintore Substation BESS Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Kintore Hydrogen Production Facility Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Kintore South Solar Array and BESS Third Party Development	Project is not located on PAL. There is therefore no likely	This project is not located within 3 km of a recreational	This project is not located within 3 km of the River South



	Construction		
Project	PAL	Recreational Airfields	Recreational Fisheries
	significant cumulative effect predicted.	airfield. There is therefore no likely significant cumulative effect predicted.	Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Womblehill Farm BESS Third Party Development	Project is not located on PAL. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Cossans Solar and BESS Third Party Development	Project appears to be partially located on PAL. PAL possibly impacted; possible cumulative effects with the Proposed Development.	This project is not located within 3 km of a recreational airfield. There is therefore no likely significant cumulative effect predicted.	This project is not located within 3 km of the River South Esk, the River North Esk or the River Dee. There is therefore no likely significant cumulative effect predicted.
Overall Inter Cumulative Assessment Summary	The Proposed Development is predicted to give rise to cumulative effects on PAL when combined with several of the Inter Developments as nine other reasonably foreseeable projects are located in areas categorised as PAL.		

- 7.7.5 The Proposed Development is predicted to have a residual **Negligible Non-significant** effect upon PAL, a **Significant (Moderate)** effect upon recreational fisheries on three sensitive rivers, and a **Significant (Major)** effect on three recreational airfields.
- 7.7.6 The Proposed Development is not predicted to give rise to significant cumulative effects when combined with the Intra Developments as PAL, recreational airfields and recreational fisheries are not affected by the Intra Developments.
- 7.7.7 There are nine Inter Developments that are likely to intersect with areas of PAL in the study area which may have cumulative effects when considered together with the Proposed Development and the Intra Developments. These projects include a solar farm, wind farm, several battery energy storage systems, a housing development, an energy park and other OHL projects. However, as set out in **Table 7.7** no data are available on the extent to which these projects would impact PAL individually and therefore no quantitative assessment can be undertaken to determine the likely cumulative effects in detail. Although the residual effect of the Proposed Development on PAL is Non-significant with a loss of around 4.97 ha of PAL predicted, given the number and scale of the Inter Developments there is potential for further loss of PAL. It is estimated that a combined area of 15 ha or more of PAL could be lost to the Inter Developments if all were developed and therefore the potential cumulative adverse effect on PAL alongside the Proposed Development and the Intra Developments would be considered as **Significant (Major)** using the criteria defined in this Chapter in **Table 7.2**: **Criteria for Magnitude of Change**.
- 7.7.8 No Inter Developments are located within 3 km of recreational airfields or the key recreational fisheries in the study area for the Proposed Development, and no significant cumulative effects are predicted.

7.8 Summary of Effects

7.8.1 Most of the land required permanently for the Proposed Development (ie land take required permanently for the OHL tower bases and permanent access tracks) is currently in agricultural use.



- 7.8.2 In total, based on the worst-case scenario of a tower base area of 272.5 m² and access track width of 4.5 m, approximately 4.97 ha of land required for the Proposed Development permanently is classified as PAL. This includes 1.56 ha of Class 2 PAL and 3.41 ha of Class 3.1, no Class 1 PAL would be impacted. The loss of 4.97 ha of PAL would occur during the construction phase and would be direct, adverse and permanent; based on the criteria set out in this Chapter the residual effect of the Proposed Development on PAL is predicted to be **Negligible** which is **Not Significant**.
- 7.8.3 Embedded Mitigation aimed to ensure that PAL was avoided where feasible during the Proposed Development's design development phases, and the Applied Mitigation will ensure that further land use impacts are avoided and minimised to the extent feasible during construction; no additional mitigation measures will be applied in relation to PAL.
- 7.8.4 The overall area of PAL that would be taken by the Proposed Development represents approximately 0.004% of Angus and Aberdeenshire Councils' total PAL resource, and approximately 0.001% of Scotland's PAL resource. In this context the permanent loss of PAL for the Proposed Development on its own would be predicted to have a negligible impact on Scotland's PAL resource overall. In addition, national and local planning policy support the development of essential infrastructure on PAL, such as the Proposed Development, where there is a specific locational need, where there is no other suitable site, and where the layout and design of the proposal minimises the amount of protected land that is required.
- 7.8.5 The residual effect of the Proposed Development in land use terms on Gossesslie Airfield, Laurencekirk Airstrip and Fordoun Airfield is considered **Significant (Major)**, the effects would occur during the construction phase and continue through operation, impacts would be direct, adverse and permanent.
- 7.8.6 The residual effect of the Proposed Development in land use terms on recreational fisheries on the River South Esk, River North Esk (including the West Water) and the River Dee is considered **Significant (Moderate)**, the effects would occur during the construction phase and continue through operation, impacts would be direct, adverse and permanent. The predicted residual effect on the Kerbet Water, Dean Water, Bervie Water and Cowie Water recreational fisheries is considered **Not Significant**.
- 7.8.7 At this stage, no additional mitigation is considered feasible in relation to the predicted effects from the Proposed Development on recreational airfields. However, liaison with the owners of Gossesslie Airfield, Laurencekirk Airstrip and Fordoun Airfield continues. At this stage, no additional mitigation is considered feasible in relation to the predicated effects from the Proposed Development on recreational fisheries. However, liaison with the key stakeholders for recreational fisheries continues.
- 7.8.8 No significant cumulative effects on PAL, recreational aviation or recreational fisheries are predicted when the Proposed Development is considered alongside the Intra Developments (the proposed Emmock and Hurlie 400 kV substations).
- 7.8.9 There are nine reasonably foreseeable Inter Developments that are likely to intersect with PAL in the study area that may result in cumulative effects on PAL when considered together with the Proposed Development and the Intra Developments. Further effects on PAL from these Inter Developments could potentially result in **Significant (Major)** cumulative effects on PAL based on the significance criteria adopted for this EIA. No significant adverse cumulative effects on recreational aviation or recreational fisheries are predicted when the Proposed Development and the Intra Developments are considered alongside the Inter Developments.