Environmental Impact Assessment Report
Volume 1, Chapter 22: Land Use

MarramWind Offshore Wind Farm

December 2025

MarramWind

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Contents

22. Land Use

22.1 Introduction

22.1.1.1 This land use Chapter of the Environmental Impact Assessment (EIA) Report presents the results of the assessment of the likely significant effects on land use that may arise from the construction, operation and maintenance (O&M) and decommissioning of the onshore Project landward of Mean Low Water Springs. It should be read in conjunction with the project description provided in **Chapter 4: Project Description** and the relevant parts of the following Chapters and Appendices:

- **Chapter 19: Ground Conditions and Contamination**. Changes to the baseline ground conditions in relation to soils, agricultural land quality and land contamination are considered in the ground conditions assessment. The effects of the Project on soils (including agricultural soils) as a natural resource are considered in the ground conditions and contamination chapter. Information on agricultural land quality from the ground conditions and contamination chapter has been used to inform the land use assessment in relation to agricultural activities.
- **Chapter 20: Water Resources and Flood Risk**. Information on rivers, other surface waterbodies and coastal waters is presented in the water resources and flood risk chapter and has been used to inform the land use assessment. Potential effects on water quality and water availability, and on flood risk receptors are considered in the water resources and flood risk chapter.
- **Chapter 23: Terrestrial Ecology and Ornithology.** Nature conservation is a type of land use, changes to land use can significantly affect wildlife and biodiversity. The land use chapter uses information on conservation designations in the terrestrial ecology and ornithology chapter in addition to habitat information and agricultural land use information confirmed through surveys and desk-based research for terrestrial ecology and ornithology chapter.
- **Chapter 26: Traffic and Transport**. Land use interacts with transport routes including the local and regional highway network and recreational routes such as the core path network, Sustrans cycle routes and navigable waterways. Effects on these are considered in the traffic and transport chapter.
- **Chapter 27: Landscape and Visual**. Landscape is in part determined by land use, for example commercial forestry land can undergo rapid change from established forest to felled trees. The visual impacts of the Project on agricultural landscapes, and open space, are considered in the landscape and visual chapter. This land use assessment considers the effects of the Project on agricultural activity.
- **Chapter 29: Greenhouse Gases.** Land use and land management affects land cover and soil, which in turn affects whether soils are storing or generating (releasing) greenhouse gases.
- **Chapter 30: Socio-Economics**. Land use and socio-economics are closely interrelated e.g., terms of agricultural production capability, mineral extraction, and the need to use land for housing or industry, balanced with the need to use natural resources sustainably and to conserve biodiversity and geodiversity. Potential effects relating to 'other land uses' including disruption to community access to recreational, tourism and other amenity resources are considered in the socio-economics chapter. Information obtained for that assessment has informed this land use chapter in relation to other land uses.

22.1.1.2 This Chapter is also supported by the following Appendix in **Volume 3**:

- **Appendix 23.2: Habitats and Vegetation Report**.

22.1.1.3 This Chapter describes:

- the legislation, planning policy, guidance and other documentation that has informed the assessment (**Section 22.2 Relevant legislative and policy context**);
- the outcome of consultation and engagement that has been undertaken to date, including how matters relating to land use have been addressed (**Section 22.3 Consultation and engagement**);
- the scope of the assessment for land use (**Section 22.4 Scope of the assessment**);
- the data sources and methods used for gathering baseline data including surveys where appropriate (**Section 22.5 Methodology for baseline data gathering**);
- the overall environmental baseline (**Section 22.6 Baseline conditions**);
- the basis for the EIA Report (**Section 22.7 Basis for EIA Report**);
- methodology for the EIA Report (**Section 22.8 Methodology for EIA Report**);
- the assessment of land use effects (**Section 22.9 Assessment of effects: construction stage, Section 22.10 Assessment of effects: operation and maintenance stage and Section 22.11 Assessment of effects: decommissioning stage**);
- a summary of effects (**Section 22.12 Summary of effects**);
- consideration of transboundary effects (**Section 22.13 Transboundary effects**);
- consideration of inter-related effects and cumulative effects (**Section 22.14 Inter-related effects** and **Section 22.15 Assessment of cumulative effects**);
- a summary of residual effects for land use (**Section 22.16 Summary of residual likely significant effects**);
- a reference list is provided (**Section 22.17 References**); and
- a glossary of terms and abbreviations is provided (**Section 22.18 Glossary of terms and abbreviations**).

22.2 Relevant legislative and policy context and technical guidance

22.2.1 Legislative and policy context

22.2.1.1 This Section identifies the relevant legislation and policy context that has informed the scope of the land use assessment. Further information on policies relevant to the EIA and their status is set out in **Chapter 2: Legislative and Policy Context**, which provides an overview of the relevant legislative and policy context for the Project. **Chapter 2: Legislative and Policy Context** is supported by **Volume 3, Appendix 2.1: Planning Policy Framework**, which provides a detailed summary of international, national, marine and local planning policies of relevance to the EIA.

22.2.1.2 Individual policies of specific relevance to this assessment and associated appendices have been taken into account.

22.2.1.3 The legislation relevant to land use includes:

- The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019;
- The Community Empowerment (Scotland) Act 2015;
- The Carbon Budget Orders (Scottish Government 2009b; 2011b; 2016 and 2021b);
- The Historic Environment (Amendment) Act (Scotland) 2011;
- The Pollution Prevention and Control (Scotland) Regulations 2012;
- The Climate Change (Scotland) Act 2009 (Section 57);
- Land Reform (Scotland) Act 2003;
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997;
- The Town and Country Planning (Scotland) Act 1997;
- Environmental Protection Act 1990;
- The Electricity Act, 1989.The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997; and
- The Town and Country Planning (Scotland) Act 1997.

22.2.1.4 The policies relevant to land use include:

- Aberdeenshire Community Wealth Building Strategy and Charter for Energy Developments (Aberdeenshire Council, 2025);
- Environment Strategy: progress report March 2024 (Scottish Government, 2024);
- National Planning Framework 4 (NPF4) (Scottish Government, 2023b);
- Aberdeenshire Local Development Plan (LDP), 2023 (Aberdeenshire Council, 2023b);
- Scotland's Third Land Use Strategy 2021 – 2026 – Getting the best from our land (Scottish Government, 2021a);
- The Environment Strategy for Scotland: vision and outcomes (Scottish Government, 2020);
- Scotland's Forestry Strategy 2019 to 2029 (Scottish Government, 2019b);
- Scotland's Forestry Strategy Implementation Plan 2022 to 2025 (Scottish Forestry, 2019); and
- The European Landscape Convention (ELC) 2006 (UK Government, 2006).
- Aberdeenshire Community Wealth Building Strategy and Charter for Energy Developments (Aberdeenshire Council, 2025).

22.2.2 Relevant technical guidance

22.2.2.1 Other information and technical guidance relevant to the assessment undertaken for land use include:

- NatureScot (formerly known as Scottish Natural Heritage (SNH)) Environmental Impact Assessment Handbook (NatureScot, 2018).

22.3 Consultation and engagement

22.3.1 Overview

22.3.1.1 This Section describes the consultation and stakeholder engagement undertaken on the Project in relation to land use. This includes early engagement, the outcome of and response to the Scoping Opinions (Scottish Government, 2023a; Aberdeenshire Council, 2023a) in relation to the land use assessment, non-statutory consultation, and the findings of the Project's Statutory Consultation. Consultation has been undertaken with Aberdeenshire Council, NatureScot and Scottish Environment Protection Agency (SEPA) in relation to land use effects. An overview of engagement undertaken for the Project as a whole can be found in Section 5.5 of **Chapter 5: Approach to the EIA**.

22.3.2 Key issues

22.3.2.1 A summary of the key issues raised during statutory and non-statutory consultation, specific to land use, is outlined in **Table 22.1**, together with how these issues have been considered in the production of this EIA Report.

Table 22.1 Stakeholder issues responses – land use

Stakeholder	Stakeholder issue ID	Date, document, forum	Stakeholder comment	How is this addressed in the EIA Report
Aberdeenshire Council	62	22 March 2023. Aberdeenshire Council's Scoping Opinion (Aberdeenshire Council, 2023a).	*"The Council agrees with the approaches indicated and does not suggest any topics be altered."*	The Council's agreement is noted. The approach to the assessment of land use effects is set out in **Section 22.8**.
Aberdeenshire Council	63	22 March 2023 Aberdeenshire Council's Scoping Opinion (Aberdeenshire Council, 2023a).	*"SEPA note this section of the scoping report and suggest key holing development where possible to avoid large scale felling. Clear felling may be permissible in specific instances only."*	Following refinement of the design and the implementation of trenchless crossings (by Horizontal Directional Drilling (HDD) (or similar trenchless technique), disturbance to forestry and woodland is being avoided. In relation to trenchless crossings, HDD has been presented in the EIA. Whilst other trenchless methods are available, HDD is presented herein as it is likely to have the largest construction impact. Significant effects due to physical disturbance of forestry and woodland are therefore scoped out of the assessment as explained in **Section 22.4**.
Aberdeenshire Council	64	22 March 2023. Aberdeenshire Council's Scoping Opinion (Aberdeenshire Council, 2023a).	*"A map showing different felling techniques; photography of general timber condition in felling areas; table of volumes of timber to be removed; a plan showing any timber residues for re-use should all be included within an EIA Report."*	Following refinement of the design and the implementation of trenchless crossings, disturbance to forestry and woodland is being avoided. Significant effects due to physical disturbance of forestry and woodland are therefore scoped out of the assessment as explained in **Section 22.4**.

Stakeholder	Stakeholder issue ID	Date, document, forum	Stakeholder comment	How is this addressed in the EIA Report
Aberdeenshire Council	66	22 March 2023. Aberdeenshire Council's Scoping Opinion (Aberdeenshire Council, 2023a).	*"Contact with Scottish Forestry to discuss the proposals be made directly."*	Following refinement of the design and the implementation of trenchless crossings, disturbance to forestry and woodland is being avoided. Significant effects due to physical disturbance of forestry and woodland are therefore scoped out of the assessment as explained in **Section 22.4**. No consultation with Scottish Forestry has therefore been required for the assessment.
Aberdeenshire Council	67	22 March 2023. Aberdeenshire Council's Scoping Opinion (Aberdeenshire Council, 2023a).	*"NatureScot make no comment on the forestry proposals."*	Following refinement of the design and the implementation of trenchless crossings, disturbance to forestry and woodland is being avoided. Significant effects due to physical disturbance of forestry and woodland are therefore scoped out of the assessment as explained in **Section 22.4**.
Aberdeenshire Council	68	22 March 2023. Aberdeenshire Council's Scoping Opinion (Aberdeenshire Council, 2023a).	*"The Council agrees that transboundary effects are unlikely as effects are likely to be generally localised."*	The Council's agreement is noted. The justification for scoping out transboundary effects on land use receptors is provided in **Section 22.13**.
SEPA	161	20 February 2023. Aberdeenshire Council's Scoping Opinion Representation.	"*6. Forest removal and forest waste.* *6.1 Key holing must be used wherever possible as large scale felling can result in large amounts of waste material and in a peak release of nutrients which can affect local*	Following refinement of the design and the implementation of trenchless crossings, disturbance to forestry and woodland is being avoided.

Stakeholder	Stakeholder issue ID	Date, document, forum	Stakeholder comment	How is this addressed in the EIA Report
			water quality. The supporting information should refer to the current Forest Plan if one exists and measures should comply with the Plan where possible."	Significant effects due to physical disturbance of forestry and woodland are therefore scoped out of the assessment as explained in **Section 22.4**.
SEPA	162	20 February 2023. Aberdeenshire Council's Scoping Opinion Representation.	"*6.2 Clear felling may be acceptable only in cases where planting took place on deep peat and it is proposed through a Habitat Management Plan to reinstate peat-forming habitats. The submission must include:* *a) A map demarcating the areas to be subject to different felling techniques;* *b) Photography of general timber condition in each of these areas;* *c) A table of approximate volumes of timber which will be removed from site and volumes, sizes of chips or brash and depths that will be re-used on site;* *d) A plan showing how and where any timber residues will be re-used for ecological benefit within that area, supported by a Habitat Management Plan. Further guidance on this can be found in Use of Trees Cleared to Facilitate Development on Afforested Land – Joint Guidance from SEPA, SNH and FCS*."	Following refinement of the design and the implementation of trenchless crossings, disturbance to forestry and woodland is being avoided. Significant effects due to physical disturbance of forestry and woodland are therefore scoped out of the assessment as explained in **Section 22.4**.

22.4 Scope of the assessment

22.4.1 Overview

22.4.1.1 This Section sets out the scope of the EIA for land use. This scope has been developed as the Project's design has evolved and responds to stakeholder feedback received to-date, as set out in **Section 22.3**.

22.4.2 Spatial scope and study area

22.4.2.1 The spatial scope of the land use assessment is defined by the Onshore Red Line Boundary, as shown on **Volume 2, Figure 22.1: Land use**, and has formed the basis of the study area described in this Section.

22.4.2.2 Land use is geographically discreet and changes to land use within the onshore Red Line Boundary will not substantially influence other land use receptors in the surrounding area either directly or indirectly. The use of the onshore Red Line Boundary is therefore considered appropriate to form the basis of the study area.

22.4.3 Temporal scope

22.4.3.1 The temporal scope of the assessment of land use is the entire lifetime of the Project, which therefore covers the construction, O&M, and decommissioning stages. The overall duration of the construction of the onshore infrastructure is expected to be up to nine years.

22.4.3.2 It is anticipated that the construction of the Project would commence in 2030, with the first phase becoming fully operational by 2037, following commissioning of the wind turbine generators for phase 1. It is anticipated that the second phase of the Project would become fully operational by 2040 and the third phase by 2043. The operational lifetime of the Project for each phase is expected to be 35 years.

22.4.3.3 The assessment of effects during construction of the Project considers that the loss of use of the land would be temporary and would occur on a phased basis over a period of years rather than across the entire onshore export cable corridor at one time.

22.4.3.4 The onshore export cables will be installed in three phases to align with the energisation of the Wind Turbine Generators (WTGs). During Phase 1, the onshore export cables will either be directly installed in trenches or in ducts laid along with the ducts required for the later installation of onshore export cables in Phases 2 and 3. Installation of Phase 2 and 3 ducts during Phase 1 will mitigate the need to re-excavate along the full onshore cable route during these subsequent phases.

22.4.3.5 Onshore export cables and the associated joint bays required for Phase 2 and 3 will be installed to align with the phased installation of offshore export cables and energisation of the WTGs.

22.4.3.6 However, in the event that more than one landfall is required, the connecting onshore export cables, from the common onshore export cable corridor to the additional landfall(s), may be laid in trenches or installed in ducts to align with the phased installation of the landfall(s).

22.4.4 Identified receptors

22.4.4.1 The spatial and temporal scope of the assessment enables the identification of receptors that may experience a change because of the Project. The receptors identified that may experience likely significantly effects for land use are outlined in **Table 22.2**.

22.4.4.2 Receptors for land use effects have been identified based on categories defined in NatureScot EIA guidance (NatureScot, 2018), with consideration of the seven illustrative land uses used in the Scottish Government Land Use Strategy (Scottish Government, 2021a), which overlap with the NatureScot land use categories, as listed below:

22.4.4.3 Land cover and land use categories in the EIA guidance (NatureScot, 2018) are:

- **water** – including the sea, estuaries, intertidal areas, lochs, lochans, pools, rivers, burns (watercourses), drainage ditches, canals and reservoirs;
- **forestry, woodland and trees** – including plantation woodland, semi natural woodland, copses, shelterbelts, roadside trees, hedgerow trees;
- **agriculture, fields and boundaries** – including arable, horticulture, intensive livestock, permanent pasture, unimproved grassland, rough hill grazing and moorland;
- **settlements** – all types; and
- **other land uses** – including parks, sports grounds, camp sites, nature reserves, docks and harbours, military sites, airfields, mineral sites, industrial, retail, warehousing or utilities sites.

22.4.4.4 The seven illustrative land uses used in the Scottish Government Land Use Strategy (Scottish Government, 2021a) are:

- **settlements**;
- **enclosed farmland** (mainly arable fields, also improved grassland and livestock farms);
- **semi-natural land** (including mixed farmland, forests, hills, mountains and moors);
- **rivers and waterbodies**;
- **coastal**;
- **islands**; and
- **marine**.

22.4.4.5 The land use receptors based on the NatureScot EIA guidance (NatureScot, 2018), overlap with receptors considered in other chapters of this EIA Report, as outlined below.

22.4.4.6 Potential effects of the Project on water quality and water availability, and on flood risk receptors are considered in **Chapter 20: Water Resources and Flood Risk**.

22.4.4.7 Potential effects of the Project on international, national and local designated ecological sites, and on sensitive habitats or species, are considered further in **Chapter 23: Terrestrial Ecology and Ornithology**.

22.4.4.8 Landscape character and designations are not ‘land uses’ rather they are the result of land use and the component parts of the landscape such as trees, water bodies, and field boundaries that comprise the overall landscape character. The assessment of effects on landscape and the visual amenity is in **Chapter 27: Landscape and Visual**.

22.4.4.9 The assessment of effects of the Project on access to land, including impacts on transport routes such as local and regional highway networks, and recreational routes including core paths, cycle routes, and navigable waterways, is in **Chapter 26: Traffic and Transport**.

22.4.4.10 Socio-economic effects of the Project relating to agriculture are considered in **Chapter 30: Socio-Economics**.

22.4.4.11 Further information on the receptors is provided in the baseline in **Section 22.6**.

Table 22.2 Identified receptors requiring assessment for land use

Receptor group	Receptors included within group
Agriculture, fields and boundaries	The main land use in the Onshore Red Line Boundary is agriculture. A range of agricultural activities are undertaken throughout the Onshore Red Line Boundary including grazing of sheep and cows, and arable farming. No 'prime agricultural land' as defined in NPF4, is present in the study area. No agricultural land of lower grade (see explanation of prime agricultural land in **Section 22.6.1**) has been identified by Aberdeenshire Council LDP as being of local importance.
Water	The landfall(s) includes coastal areas with sand dunes at Scotstown and Lunderton (North and South). The Project avoids physical disturbance to these coastal areas by using trenchless crossings to reach the landfall(s) locations, with the landfall(s) temporary construction compound and associated transition joint bays located inland in agricultural fields. The Red Line Boundary is intersected by the Annachie Burn, Cuttie Burn, Burn of Faichfield, the River Ugie, and associated tributaries. Trenchless crossings are proposed where the onshore export cable corridor is required to cross the Burn of Faichfield, the River Ugie, and associated tributaries.
Forestry, woodland and trees	The landfall(s) includes areas of commercial plantation woodland (mature coniferous plantations at National Grid Reference (NGR) coordinates 410388, 851374 at the Scotstown landfall and at the Lunderton North landfall at NGR coordinates 411255, 849426). Other woodland is present within the Onshore Red Line Boundary, although typically limited in extent and occurring along the banks of the rivers intersecting the onshore export cable corridor. Trenchless crossings are proposed to avoid commercial forest plantations and woodland in the landfall(s) and the onshore export cable corridor. This avoids the need for tree felling and protects the woodland habitats. Forestry is considered as a receptor in relation to the operation of the Project due to the requirement for the permanent onshore export cable corridor servitude along the onshore export cable route as the route will potentially run through commercially forested areas.

Receptor group	Receptors included within group
Other land uses	The Onshore Red Line Boundary includes limited other land uses. Those present include core paths intersected by the Project. The northern extent of Peterhead Golf Course (Craigewan Links) is within the Onshore Red Line Boundary, but this is avoided by the use of trenchless crossing to install onshore export cable ducts at the Lunderton South landfall. The assessment of effects of the Project on access to land, including impacts on transport routes such as local and regional highway networks, and recreational routes including core paths, cycle routes, and navigable waterways, is in **Chapter 26: Traffic and Transport**. Commercial and leisure land uses are present at Longside Airfield, including businesses and use of a runway by Buchan Aero Club. However, the Project will avoid these land uses through the Onshore Red Line Boundary being located immediately east of the current airfield boundary. The Rattray Head to Peterhead coast at the landfall(s) (at Scotstown and Lunderton North and South) is designated by Aberdeenshire Council as a Local Nature Conservation (LNC) site. Physical disturbance to this area will be avoided by the Project through installing ducts and associated export cables using trenchless crossing techniques. No Wild Land Areas are present in the study area for land use. Where existing utilities (such as gas, electricity and water pipes) are present within the Onshore Red Line Boundary, disturbance or damage to these utilities will be avoided by the Project through liaison with the utility operator to agree safe methods of crossing in accordance with each operator's guidance for construction work in proximity to their assets.
Settlements	Following refinement of the Onshore Red Line Boundary, settlements are avoided by the Project. Information available from the Local Development Plan Evidence Play Recreation and Sport map (Aberdeenshire Council, 2024) identifies no play areas within the Onshore Red Line Boundary.

22.4.5 Potential effects

22.4.5.1 Potential effects on land use receptors that have been scoped in for assessment are summarised in **Table 22.3**.

Table 22.3 Potential effects for land use

Receptor	Activity or impact	Potential effect
Construction stage		
Agriculture and field boundaries	C1: Temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land). Temporary loss of land or access to land or severance for farming.	Temporary loss of land or access to land or severance for farming, activity. Arable farming and livestock grazing (cows and sheep) take place within the Onshore Red Line Boundary. Potential impacts will depend on farm size and location in relation to the onshore export cable corridor. Possible impacts include entire fields being temporarily inaccessible, severance of fields or farm access routes (by the linear working corridor), and disruption to rotations of crops / grazing / fallow periods between fields.
O&M stage		
Agriculture, field and boundaries	O1: Permanent change to land use and / or land cover due to construction of permanent features including the onshore substations, and transition joint bays, and change of land use from agriculture to drainage and landscaping for the onshore substations. Original land use cannot be reinstated as a result of the Project. Land take, change in land cover (from vegetation and soil to hardstanding or engineering materials).	Land take for a new use where the baseline land use cannot continue or is severely restricted. Change in land cover from a 'soft' land use such as agriculture (with soil and vegetation present) to a 'hard' land use, with buildings, hardstanding, or engineered materials placed in the ground.
Agriculture, field and boundaries **Forestry, woodland and trees**	O2: Permanent limitation to land use due to rights of servitude required along cable routes during operation. Baseline land use is restricted during the Project's operation.	Limiting future land use options on the affected agricultural land during operation to maintain access within land in the permanent corridor (servitude), for instance, future tree planting not possible, buildings / structures may not be permitted. Physical disturbance to forestry during construction is avoided through the installation ducts and export cables using trenchless crossing techniques, however

Receptor	Activity or impact	Potential effect
		areas of commercial forestry will fall within the permanent corridor (servitude) and may therefore be affected by restrictions on land use.
Decommissioning stage		
D1: Effects during decommissioning are assumed to be similar to those during construction, however of smaller scale due to the onshore electrical cables being left in-situ, the underground structures of the joint bays, FOC junction boxes and link boxes will be removed only if it is feasible with minimal environmental disturbance or if their removal is required to return the land to its current agricultural use and the onshore substations and associated access roads will be removed and the site reinstated.		

22.4.6 Effects scoped out of assessment

22.4.6.1 A number of potential effects have been scoped out from further assessment, resulting from a conclusion of no likely significant effect. These conclusions have been made based on the knowledge of the baseline environment, the nature of planned works and the professional judgement on the potential for impact from such projects more widely. The conclusions follow (in a site-based context) existing best practice. Each scoped out activity or impact is considered in turn in **Table 22.4**.

Table 22.4 Activities or effects scoped out of assessment

Activity or impact	Rational for scoping out
Temporary change to land use and / or land cover during construction or decommissioning (working corridor / temporary compounds temporarily restricting access to / use of land) **Impacts on public access to land including:** • **water;** • **forestry, woodland and trees; and** • **other land uses: commercial activity, settlements, play areas, nature conservation areas** **(Construction or decommissioning)**	Impacts on water resources are considered in **Chapter 20: Water Resources and Flood Risk.** No water-based activities such as onshore water transportation, or other commercial activities that could require consideration under the land use topic were identified in the study area. Areas of forestry and woodland are avoided by the Project by using trenchless crossings to avoid disturbance to these areas. In regard to public access to open space, the Project will generally avoid restricting access to coastal areas and beaches, and the Peterhead Golf Course (Craigewan Links) by the use of trenchless techniques and location of temporary compounds further inland on agricultural fields. Direct impacts on the coastal areas and Golf Course (Craigewan Links) will be avoided due to the location of the landfall(s) inland. The core paths, including the Formantine and Buchan Way Core Path and Long Distance Route and the coastal path are intersected by the Onshore Red Line Boundary. The assessment of effects

Activity or impact	Rational for scoping out
	of the Project on access to land, including impacts on transport routes such as local and regional highway networks, and recreational routes including core paths, cycle routes, and navigable waterways, is in **Chapter 26: Traffic and Transport**. Measures to avoid or minimise impacts are included in **Volume 4: Outline Construction Traffic Management Plan** which includes the **Outline Travel Plan and Outline Core Path Management Plan.** Construction effects such as visual impacts, and temporary restrictions to recreational routes are also considered in other chapters (see **Section 22.1**). Settlements and nature conservation areas were included as potential land use receptors at scoping, however, following refinement of the Project search area, the Onshore Red Line Boundary does not include any nature conservation areas and avoids settlements. A few localised residential properties are omitted from the Onshore Red Line Boundary but are surrounded by it, based on the areas of proposed temporary development for the Project and existing access roads, tracks and paths, access to these properties can be maintained during the Project, avoiding temporary severance impacts during construction. Information available from the LDP Evidence Play Recreation and Sport map (Aberdeenshire Council, 2024) identifies no play areas within the Onshore Red Line Boundary.
Permanent change to land use and / or land cover due to construction of permanent features including the onshore substations, transition joint bays at the landfall(s) and joint bays in the onshore export cable corridor **Impacts on public access to land including** • **water,** • **forestry, woodland and trees; and** • **other land uses: commercial activity, settlements, play areas, nature conservation areas** **(Operation / maintenance)**	Impacts on water resources are considered in **Chapter 20: Water Resources and Flood Risk.** No water-based activities such as water transportation, or other commercial activities that could require consideration under the land use topic were identified in the study area. The Project avoids causing fragmentation of woodland, semi-natural land or sensitive habitats by the use of HDD (or similar trenchless technique) to avoid disturbance of / change to land cover. Effects on trees are considered in the Arboricultural Impact Assessment (AIA) included as **Volume 3, Appendix 23.10 Arboricultural Impact Assessment.** In regard to public access to open space, the Project avoids permanent development that would restrict access to coastal areas and beaches, and the Peterhead Golf Course (Craigewan Links) by the use of trenchless techniques and location of infrastructure (such

Activity or impact	Rational for scoping out
	as onshore substations, access roads and joint bays) further inland in agricultural land. Effects on core paths, including the Formantine and Buchan Way Core Path and Long Distance Route and coastal path intersected by the Onshore Red Line Boundary, are considered in **Chapter 27: Landscape and Visual,** and measures to avoid or minimise impacts are included in the **Outline Construction Traffic Management Plan**, which includes the **Outline Travel Plan and Outline Core Path Management Plan.** Other associated effects such as visual impacts, and impacts on recreational routes are considered in other chapters (see **Section 22.1**). Settlements and nature conservation areas were included as potential land use receptors at scoping, however, following refinement of the Project search area, the Onshore Red Line Boundary does not include any nature conservation areas and avoids settlements. Information available from the LDP Evidence Play Recreation and Sport map (Aberdeenshire Council, 2024) identifies no play areas within the Onshore Red Line Boundary.

22.4.6.2 Due to the limited effects scoped in for assessment in this land use Chapter, only the relevant potential land use receptors are included in the assessment methodology in **Section 22.8**.

22.5 Methodology for baseline data gathering

22.5.1 Overview

22.5.1.1 Baseline data collection has been undertaken to obtain information over the study area described in **Section 22.4: Scope of the assessment**. The current and future baseline conditions are presented in **Section 22.6: Baseline conditions**.

22.5.2 Desk study

22.5.2.1 The data sources that have been collected and used to inform this land use assessment are summarised in **Table 22.5**.

Table 22.5 Data sources used to inform the land use Chapter

Source	Date	Summary	Coverage of study area
LDP Evidence Play Recreation and Sport map (Aberdeenshire Council, 2024). Open space audit data map	2024	Shows the location and status of sites audited by Aberdeenshire Council in the draft Open Space Audit in 2024.	Full coverage of the study area.
Multi-agency partnership, Scotland's Environment website (SEPA, 2025)	2025	Habitat Map of Scotland – contains habitat and land use data for all of Scotland using internationally recognised data and habitat classification standards, including the European Nature Information System and Habitats Directive Annex I habitat classifications. The woodland component is converted from surveys undertaken by Forestry Commission Scotland. Ancient Woodland Inventory. Native Woodland Survey of Scotland (NWSS).	Full coverage of the study area.
Volume 3, Appendix 23.2	2025	The land use assessment is informed by the habitat survey undertaken for the Project. This provides mapped information on the baseline agricultural activity (including identifying fields as arable, providing information on the crops being grown, and identifying improved or semi-improved grassland, used for grazing) and also other land uses, such as forestry, undertaken within the Onshore Red Line Boundary.	Full coverage of the study area.
Volume 3, Appendix 23.10	2025	The AIA identifies and assesses trees which may be affected by the Project and sets out the measures to protect trees during construction and decommissioning.	Full coverage of the study area.

22.5.3 Site surveys

22.5.3.1 The site surveys that have been conducted and used to inform this land use assessment are summarised in **Table 22.6**.

Table 22.6 Site surveys undertaken

Survey type	Scope of survey	Coverage of study area
Ground conditions and land use walkover survey (site reconnaissance), November 2023 **Detailed in: Volume 3, Appendix 19.1: Phase 1 Contaminated Land Report**	Site walkover of the onshore substations to record land use.	Onshore substations only.
Ground conditions and land use walkover survey (site reconnaissance), September 2024 **Detailed in: Volume 3, Appendix 19.1**	Site walkover of onshore substations and landfall(s) and onshore export cable corridor to record land use.	Onshore substations, landfall(s) and onshore export cable corridor.
Habitat and vegetation surveys (various) **Detailed in: Volume 3, Appendix 23.2**	Vegetation and habitat surveys which include details of agricultural land uses, forestry and woodland, within the Onshore Red Line Boundary.	Onshore substations, landfall(s) and onshore export cable corridor.
Landscape surveys (various) **Detailed in: Chapter 27: Landscape and Visual**	Field surveys to verify landscape elements within the Onshore Red Line Boundary, including transport and recreational routes.	Onshore substations, landfall(s) and onshore export cable corridor.

22.5.4 Data limitations

22.5.4.1 There are no known data limitations at the time of this study relating to land use that affect the robustness of this EIA Report.

22.6 Baseline conditions

22.6.1 Current baseline

Agriculture, fields and boundaries

22.6.1.1 All land in the Onshore Red Line Boundary is covered by Land Capability for Agriculture (LCA) Classification. In the LCA system, land is classified based on its potential for growing different types of crops, and its suitability for grazing, taking into consideration soils, climate and landscape. The LCA grading system (Macauley Institute for Soil Research, 1991) is

explained in **Chapter 19: Ground Conditions and Contamination**. **Volume 2, Figure 19.4: Land capability for agriculture** shows the LCA classifications within the study area.

22.6.1.2 Following refinement of the design, there is no 'prime agricultural land' within the Onshore Red Line Boundary. Prime agricultural land is land in LCA classes 1, 2 and 3.1, and this is land capable of supporting a range of arable agriculture, with Class 1 being the most versatile land. The LCA class is relevant to agricultural activities and land use as the LCA class is defined based on the flexibility of the land for agricultural use. On low grade land there will be limitations such as steep gradients, droughtiness, stoniness, and / or excessive soil wetness, which limit what can be grown. Details of all the land classes in the LCA system are provided in the Glossary.

22.6.1.3 Most of land identified within the Onshore Red Line Boundary is shown on the 1:50,000 scale LCA map as Class 3.2. Typically, this class of land is improved grassland, or in arable use for growing cereals, such as barley and oats, and it may also be used for growing potatoes. Production levels on this land are average. Grass leys are common, these are sown pastures, usually with grass and clover, and either in use for pasture, or left for a season / a few years to recover.

22.6.1.4 Aberdeenshire is known for its livestock sector, and The North East Scotland Agriculture Advisory Group (Aberdeenshire Council, 2016) information indicates that the profile of agricultural output across Aberdeenshire in 2014 comprised: beef cattle 38.5%, cereals 17.4%, pigs 11.9%, sheep 7.9%, potatoes 6.9%, poultry and eggs 6%, dairy 4.6%, intensive crops 41% and oilseed rape 2.7%.

22.6.1.5 The habitat survey completed for the Project confirmed the agricultural activities within the Onshore Red Line Boundary as mainly arable and sheep grazing, cattle were also observed grazing in a field at the Scotstown landfall.

22.6.1.6 Summary findings of the habitat survey in relation to agricultural activities undertaken within the Onshore Red Line Boundary are listed below by zone and shown on **Figure 22.1** which identifies arable land and pasture (improved grassland or semi-improved grassland typically used for livestock grazing), and shows the indicative layout of the Project in relation to the habitats.

- **Landfall zone**:
  - Scotstown landfall and associated onshore export cable corridor: semi-improved grassland at the coast, cattle grazing, arable further inland;
  - Lunderton North landfall and associated onshore export cable corridor: semi-improved grassland at the coast, arable further inland, crops noted to include wheat and possibly potato; and
  - Lunderton South landfall and associated onshore export cable corridor: improved grassland at the coast, arable further inland, crops noted to include barley and oilseed rape.
- **Onshore export cable corridor zone A** (from the River Ugie south to the onshore substations)**:** arable in the north, improved grassland and sheep grazing in the south;
- **Onshore substation zone:** improved grassland, sheep grazing; and
- **Onshore export cable corridor zone B:** mixture of arable (cereal crops), improved grassland, semi-improved grassland.

22.6.1.7 Within the agricultural land, the mapping does not indicate the presence of areas utilised for game sports and there are no obvious shooting ranges present; however, game shooting activities may take place on a seasonal basis within the Onshore Red Line Boundary.

22.6.1.8 During the surveys completed for the land use assessment, no evidence of diversification of farm businesses was observed within the study area.

Forestry, woodland and trees

22.6.1.9 Information reviewed to inform the baseline for forestry and woodland has included the Ancient Woodland Inventory, Habitat Map of Scotland and NWSS as detailed in **Table 22.5**. Details of all woodland areas and trees within the Onshore Red Line Boundary are provided in **Chapter 23: Terrestrial Ecology and Ornithology.** An AIA is included as **Volume 3, Appendix 23.10.** which identifies and assesses trees which may be affected by the Project and sets out the measures to protect trees during construction and decommissioning.

22.6.1.10 Two areas of commercial forestry activity and small areas of other woodland are present in the Onshore Red Line Boundary including the following:

- the landfall zone includes:
  - an area of commercial plantation woodland (mature coniferous plantations at NGR (410388 851374)) in proximity to the Scotstown landfall, with a small area of broadleaved woodland on the periphery of the conifer plantation; and
  - an area of commercial plantation woodland in proximity to the Lunderton North landfall, (at NGR 411255 849426) with broadleaf riparian woodland either side of the Cuttie Burn watercourse.
- ancient woodland is present along the banks of the River Ugie in onshore export cable corridor zone A.

22.6.1.11 The Project will avoid disturbance to commercial forest plantations and other identified woodland habitat by using trenchless crossings for the installation of the landfall(s) export cable ducts and associated onshore export cables (see **Figure 22.1**).

Other land uses

22.6.1.12 Following refinement of the Project design, the Onshore Red Line Boundary includes only limited other land uses.

22.6.1.13 Public open space and recreational areas are present. Beaches at the landfall zone are used by members of the public. A public car park is present west of the sand dunes at Scotstown Beach in proximity to the Scotstown landfall.

22.6.1.14 Part of Peterhead Golf Course (Craigewan Links) is within the Onshore Red Line Boundary at the Lunderton South landfall.

22.6.1.15 Some core paths including the Formantine and Buchan Way Core Path and Long Distance Route and a coastal path are intersected by the Onshore Red Line Boundary, as described in **Chapter 27: Landscape and Visual** and detailed in **Volume 4: Outline Construction Traffic Management Plan** in the **Outline Construction Environmental Management Plan**, which includes the **Outline Travel Plan** and **Outline Core Path Management Plan**. The assessment of effects of the Project on access to land, including impacts on transport routes such as local and regional highway networks, and recreational routes including core paths, cycle routes, and navigable waterways, is in **Chapter 26: Traffic and Transport**.

22.6.1.16 The Project will avoid direct land use impacts on coastal areas and the Golf Course (Craigewan Links) by the location of the landfall(s) inland and the use of trenchless crossings, with the installation of the landfall(s) ducts and associated onshore export cables inland (see **Figure 22.1**).

22.6.1.17 Within Longside Airfield various commercial activities take place: a runway in the north of the airfield is used by the Buchan Aero Club, Independent Oilfield Services and other similar businesses operate on the airfield, utilising former runway areas for external storage. A car hire company is present in the southeast of the airfield. These activities are avoided by the Project as the Onshore Red Line Boundary is immediately east of the current airfield boundary and no restrictions to airfield activity are anticipated during construction of the Project.

22.6.1.18 The Rattray Head to Peterhead coast in the landfall zone (at Scotstown and Lunderton North and South) is designated as an LNC site. This is detailed in **Chapter 23: Terrestrial Ecology and Ornithology**. Physical disturbance to the area will be avoided by the Project by using trenchless crossings for the installation of the landfall(s) cable ducts and associated onshore export cables.

Water

22.6.1.19 The Onshore Red Line Boundary is intersected by the Annachie Burn, Cuttie Burn, Burn of Faichfield, the River Ugie, and associated tributaries, and the landfall zone includes coastal areas at Scotstown and Lunderton. These are detailed in **Chapter 20: Water Resources and Flood Risk**. Details of water abstractions and discharges to the water environment and the assessment of impacts on abstractions and discharges is provided in **Chapter 20: Water Resources and Flood Risk**.

22.6.1.20 No water-based activities such as water transportation, or other commercial activities have been identified in the Onshore Red Line Boundary.

Settlements

22.6.1.21 The Onshore Red Line Boundary avoids residential land. No residential developments were observed to be under construction within the Onshore Red Line Boundary during surveys for the Project.

22.6.2 Future baseline

22.6.2.1 The LDP for Aberdeenshire was consulted to confirm the locations of housing allocations for the Buchan area that would likely result in a change of land use from agricultural to settlement. The LDP confirms there are none within the Onshore Red Line Boundary and therefore no indication of imminent residential development taking place. There is an allocation for employment land at Longside Airfield, however this does not extend into the Onshore Red Line Boundary.

22.6.2.2 Aberdeenshire Council information on energy development proposals (Aberdeenshire Council, 2025) shows a proposal for a solar photovoltaic (PV) farm south of the Onshore Red Line Boundary at the Scotstown landfall. Other applications for offshore wind developments are also known to be in progress (see **Section 22.15**) and to require the use of land within the Onshore Red Line Boundary. Increased use of land within the Onshore Red Line Boundary for solar PV and wind energy developments is likely, increasing use of land in the region for renewable energy generation.

22.6.2.3 Farming activities are likely to change over time and could change rapidly in the short term, due to factors including increasing costs of raw materials such as feed and fertilizers, increased energy costs, and policy changes affecting farming subsidies or land management schemes. Farmers may also opt to sign up to agri-environment schemes which require specific land management measures, such as the Agri-Environment Climate Scheme.

22.6.2.4 Climate change effects will also alter the viability of the land for growing crops. This could result in changes to the type of agriculture carried out or a complete change of land use for instance, to solar farms or woodland or other commercial activity.

22.6.2.5 Aberdeenshire Council has developed a Forestry and Woodlands Strategy (Aberdeenshire Council, 2017). Policy E3.4 of the 2023 Local Plan includes a map of Preferred Areas for New Woodland Creation in the Aberdeenshire Forestry and Woodland Strategy to identify where new woodlands could go to maximise benefits and promote integrated land use. This shows most of the land within the Onshore Red Line Boundary, which is currently in predominantly agricultural use, except for coastal areas within the landfall zone, as preferred for new woodland creation. No proposals for specific areas of woodland creation have been identified.

22.7 Basis for EIA Report

22.7.1 Maximum design scenario

22.7.1.1 The process of assessing using a parameter-based design envelope approach means that the assessment considers a maximum design scenario whilst allowing the flexibility to make improvements in the future in ways that cannot be predicted at the time of submission of the planning application, marine licences applications and section 36 consent.

22.7.1.2 The assessment of the maximum adverse scenario for each receptor establishes the maximum potential adverse effect and as a result effects of greater adverse significance would not arise should any other scenario (as described in **Chapter 4: Project Description**) to that assessed within this Chapter be taken forward in the final Project design.

22.7.1.3 The maximum design scenario parameters that have been identified to be relevant to land use are outlined in **Table 22.7** and are in line with the project design envelope (**Chapter 4: Project Description**).

Table 22.7 Maximum design scenario for impacts on land use

Impact / activity	Maximum design scenario parameter	Justification
Construction		

Impact C1: Temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land)
 	
Temporary loss of land or access to land or severance for farming, forestry or commercial activity
	<u>Landfall(s):</u>
	Assumes maximum footprint of construction activities for all landfall options (Option 2: Scotstown and Lunderton),
	• temporary access road/s up to six metres (m) wide, location see **Volume 2, Figure 4.1: Onshore Red Line Boundary and indicative onshore infrastructure**;
	• temporary construction compound area 345m x 70m;
	• up to seven below ground transition joint bays, typically 12m long x 3.5m wide x 2.5m deep;
	• up to eight cable ducts;
	• cable ducts installed using HDD (or similar trenchless technique) installation methodology;
	• landfall construction works duration:
	  ▸ phase 1 – up to one year;
	  ▸ phase 2 – up to one year; and
	  ▸ phase 3 – up to one year.
	
	<u>Onshore export cable corridor:</u>
	• temporary access roads / haul roads up to 6m wide, location see **Volume 2, Figure 4.1**;
	• for the onshore export cable corridor from the landfall(s) to the onshore substations, the corridor is up to 89m wide and an approximate length of 11 kilometre (km);
	• up to six trenches, with typical trench depth of up to 1.5m;
	• onshore export cable corridor from the onshore substations to the Scottish and Southern Electricity Network (SSEN) Netherton Hub, the corridor is up to 99m wide and an approximate length of 2.35km; and
	• up to seven trenches, with typical trench depth of up to 1.5m.
	
	<u>Joint bays:</u>
		The maximum design scenario assumes that development could take place anywhere within the Onshore Red Line Boundary.
		
		The phased construction is explained in **Section 22.4.3**. The land use assessment considers the overall duration of the construction of the onshore infrastructure of to nine years. The assessment considers that the land use impact would occur on a phased basis over a period of years rather than across the entire onshore export cable corridor at one time, but that some elements of temporary development, such as temporary construction compounds, may need to remain in place for all phases.

Impact / activity	Maximum design scenario parameter	Justification
	• typically, joint bays are located every 600m to 1000m; • at each joint bay location, along the onshore export cable corridor from the landfall(s) to the onshore substations, there are up to six joint bays; • at each joint bay location, along the onshore export cable corridor from the onshore substations to SSEN Netherton Hub, there are up to seven joint bays; • each joint bay will be approximately 9m long by 3m wide, and depth of up to 2m; • joint bay construction duration per location (does not include cable pulling duration) is six to ten weeks; • each joint bay will have an associated link box and Fibre Optic Cable (FOC) junction box that will be accessible at surface level; and • each link box and FOC junction box will be approximately 3m long by 1m wide, with a depth of up to 1.5m, with a 0.9m square access cover, which may be up to 10m from the associated joint bay. The temporary construction corridor may require widening beyond the standard width to allow enough space for access / equipment at crossing points with roads, rivers or utilities, and to avoid other obstacles to installation. <u>Trenchless crossings:</u> • the onshore export cable corridor widens to up to 300m at locations where trenchless crossings are required; • 22 trenchless crossing compounds; • trenchless crossing compound dimensions: up to 300m x 50m (width and length); and • six to 12 months construction duration per trenchless crossing location (does not include cable pulling duration). A crossings schedule is provided in **Volume 3, Appendix 4.1: Crossings Register**. <u>Temporary construction compounds</u>: • Up to three temporary primary construction compound locations (each up to 125m x 125m in area).	

Impact / activity	Maximum design scenario parameter	Justification
	• Up to six temporary secondary construction compound locations (each up to 100m x 100m in area). • Construction of each joint bay will require a temporary construction compound (each up to 30m x 85m in area). These compounds are likely to be accommodated within the onshore export cable corridor and the land required is therefore included above under onshore export cable corridor. Onshore export cable corridor construction works duration: • phase 1 – up to two and a half years; • phase 2 – up to one year; and • phase 3 – up to one year. <u>Onshore substations:</u> • up to 15 hectares (ha) permanent area for the onshore substations with associated permanent access roads up to 4.2 hectares (ha), plus drainage / landscaping areas estimated at approximately 36ha, all of which will be located within the Onshore Red Line Boundary; and • up to 3.06ha additional temporary construction compound area. Onshore substations construction works duration: • phase 1 – up to three years; • phase 2 – up to three years; and • phase 3 – up to three years.	
O&M		
Impact O1: Permanent change to land use and / or land cover due to construction of permanent features including the onshore substations, the landfall(s) transition joint bays and onshore export cable corridor joint bays	<u>Landfall(s):</u> Assumes maximum footprint of construction activities for all landfall options (Option 2: Scotstown and Lunderton): • up to seven below ground transition joint bays, typically 12m long x 3.5m wide x 2.5m deep; • up to eight cable ducts; and • cable ducts installed using HDD (or similar trenchless technique) installation methodology.	The maximum design scenario includes all areas of permanent land use change including the onshore cable permanent corridor (servitude) and is based on development taking place anywhere within the Onshore Red Line Boundary.

Impact / activity	Maximum design scenario parameter	Justification
Original land use cannot be reinstated as a result of the Project	<u>Onshore export cable corridor:</u> Joint bays: • typically, joint bays are located every 600m to 1000m; • at each joint bay location, along the onshore export cable corridor from the landfall(s) to the onshore substations, there are up to six joint bays; • at each joint bay location, along the onshore export cable corridor from the onshore substations to SSEN Netherton Hub, there are up to seven joint bays; • each joint bay has a depth of up to 2m; and • joint bay construction duration per compound (does not include cable pulling duration) is six to ten weeks. The temporary construction corridor may require widening beyond the standard width to allow enough space for access / equipment at crossing points with roads, rivers or utilities, and to avoid other obstacles to installation. <u>Onshore substations:</u> • up to 15ha permanent area for the onshore substations with associated permanent access roads up to 4.2ha, plus additional land for drainage / landscaping areas estimated at approximately 36ha, all of which will be located within the Onshore Red Line Boundary.	
Impact O2: Permanent limitation to land use due to the permanent onshore export cable corridor servitude required along cable routes during operation	Maximum permanent development footprint for landfall(s) (Scotstown and Lunderton) including land in the permanent onshore export cable corridor servitude. The onshore cable corridor from the landfall(s) to the onshore substations will have a permanent onshore export cable corridor servitude width of up to 61m, and the onshore cable corridor from the onshore substations to SSEN Netherton Hub will have a permanent onshore export cable corridor servitude of up to 71m. A wider permanent onshore export cable corridor servitude will be needed where HDD (or similar trenchless technique) is used and will be accommodated within the Onshore Red Line Boundary.	The permanent onshore export cable corridor servitude is likely to limit activities that can be undertaken on land, including ground disturbance and building work. The maximum design scenario therefore includes all areas of the permanent onshore export cable corridor servitude within the Onshore Red Line Boundary.

Impact / activity	Maximum design scenario parameter	Justification
Decommissioning		
Impact D1: Temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land) **Temporary loss of land or access to land or severance for farming, forestry or commercial activity**	Refer to Impact C1.	Effects during decommissioning are assumed to be similar to those during construction, however of smaller scale due to the onshore export cables being left in situ and only the onshore substations being decommissioned and removed.

22.7.2 Embedded environmental measures

22.7.2.1 As part of the Project design process, a number of embedded environmental measures have been adopted to reduce the potential for adverse impacts on land use. These embedded environmental measures have evolved over the development process as the EIA has progressed and in response to consultation.

22.7.2.2 These measures also include those that have been identified as good or standard practice and include actions that would be undertaken to meet existing legislation requirements. As there is a secured commitment to implementing these embedded environmental measures, and also to various standard sectoral practices and procedures, they are considered inherently part of the design of the Project and are set out in the EIA Report. **Table 22.8** set out the relevant embedded environmental measures within the design and how these affect the land use assessment and details how the measures will be secured.

Table 22.8 Relevant land use embedded environmental measures

ID	Environmental measure proposed	Project stage measure introduced	How the environmental measures will be secured	Relevance to land use assessment
M-001	Underground cables will be used to connect from the landfall(s) transition joint bays to the onshore substations. An additional section of the onshore export cable corridor will run from the onshore substations to the grid connection point at SSEN Netherton Hub. Cables are typically installed in ducts in a standard buried trench arrangement with appropriate insulation, providing protection from temperature extremes and changes in soil moisture.	Scoping Amended at EIA Report	Outline CEMP and planning conditions.	Use of underground cables enables land to be reinstated back to agricultural use over buried cables.
M-003	A crossing schedule of the grid connection crossings will be prepared that includes crossing methodologies, where required, for all roads, rail, core paths, rights of way and watercourses.	Scoping	Outline CEMP and planning conditions.	Use of trenchless crossings avoids impacts on sensitive land use receptors.
M-005	To reduce the environmental impact of the landfall(s), a trenchless solution is to be implemented to install ducts. Whilst other trenchless methods are available, HDD (or similar trenchless technique) is presented. Determination of the most suitable trenchless landfall crossing method will be undertaken during the detailed design stage of the Project, following geotechnical investigation of the onshore and nearshore areas.	Scoping Amended at EIA Report	Outline CEMP, description of Project and planning conditions.	Use of trenchless crossings avoids impacts on sensitive land use receptors.
M-026	Signage and / or temporary core path / Rights of Way diversions will be provided during construction where necessary to avoid the construction working areas.	Scoping	Outline Core Paths Management Plan and planning conditions.	This measure minimises impacts on land use receptors.

ID	Environmental measure proposed	Project stage measure introduced	How the environmental measures will be secured	Relevance to land use assessment
M-027	At any sensitive features identified along the route, the working width of the temporary construction corridor will be reduced as far as practicable to avoid or minimise potential environmental effects. Where it is necessary to cross sensitive features, such as watercourses and woodland, trenchless construction methods will be used to install ducts under the crossed feature, which the onshore export cables are then pulled through via entry and exit pits.	Scoping Amended at EIA Report	Outline CEMP and planning conditions.	This measure minimises disturbance to sensitive land use receptors.
M-063	A CEMP to be implemented by the contractor in accordance with **Volume 4: Outline Construction Environmental Management Plan**. The contractor will ensure that the relevant environmental measures within the CEMP and health and safety procedures are implemented. A CEMP will identify the project management structure roles and responsibilities with regard to managing and reporting on the environmental impact of the construction stage.	Scoping Amended at EIA Report	Outline CEMP, description of Project and planning conditions.	The Outline CEMP includes an Outline SMP to protect soils during construction to support land being returned to the baseline land use, in addition to the other measures to ensure effective environmental management, manage construction activities, and ensure that environmental impacts are avoided, prevented, or minimised.
M-066	The permanent rights of servitude for the onshore export cable corridor will be kept to the minimum width needed for safe access for cable maintenance or replacement purposes during operation of the Project.	Scoping Amended at EIA Report	Planning conditions.	This measure minimises the area of potential restrictions on future land uses within the permanent onshore export cable corridor servitude.
M-071	During topsoil stripping, machinery with low ground pressure will be used to minimise soil compaction where the soil conditions indicate that compaction is possible. Storage time will be kept to the practicable minimum to prevent the soil deteriorating in quality. Topsoil stripped from different fields will be stored separately, as will soil from hedgerow banks or woodland strips.	Scoping	Outline CEMP and planning conditions.	This measure will protect soils during temporary development so that restored soils can recover and continue to perform their functions in an agricultural land use context (including supporting crops / biomass production, biodiversity, water cycle).

ID	Environmental measure proposed	Project stage measure introduced	How the environmental measures will be secured	Relevance to land use assessment
M-083	The permanent footprint of the onshore substations, landfall(s), transition joint bays and onshore export cable corridor joint bays will be minimised to that required for the safe O&M of the equipment in order to minimise land take.	Scoping Amended at EIA Report	Outline CEMP and planning conditions.	This measure minimises land take and changes to baseline land use.
M-084	Avoidance of settlement, open space and land used by the community that might be directly affected or severed from the community.	Scoping	Outline CEMP management plans, description of Project and planning conditions.	This measure avoids impacts on sensitive residential receptors.
M-085	The Project will avoid causing fragmentation of woodland, semi-natural land or sensitive habitats where possible, through the use of existing breaks in land use or use of HDD (or similar trenchless technique) to avoid disturbance of / change to land cover.	Scoping Amended at EIA Report	Outline CEMP, description of Project and planning conditions.	This measure avoids impacts on woodland habitats, nature conservation areas and disruption to commercial forestry activities.
M-089	Removal of above-ground infrastructure and restoration of sites at the end of the operational stage.	Scoping	Description of Project and planning conditions.	This measure commits to enabling restoration of the land to the original land use at end of the Project.
M-112	The Project will aim to avoid permanent development on prime agricultural land (Class 1, 2 or 3 LCA grades) with the aim of preserving the best quality agricultural land for its future food / biomass production capability and other soil functions where reasonably possible.	Scoping Amended at EIA Report	Outline CEMP, description of Project and planning conditions.	This measure avoids impacts on the best agricultural land in Scotland, which is a limited natural resource (only 13% of Scotland's land cover is recorded as prime agricultural land (NatureScot, 2023), and the true figure is likely to be less as the mapping will not show land developed since the 1980s).

22.7.2.3 Further detail on the embedded environmental measures in **Table 22.8** is provided in the **Volume 3, Appendix 5.2**, which sets out how and where particular embedded environmental measures will be implemented and secured.

22.8 Methodology for the EIA Report

22.8.1 Introduction

22.8.1.1 The project-wide approach to assessment is set out in **Chapter 5: Approach to EIA.** Whilst this has informed the approach that has been used in this land use assessment, it is necessary to set out how this methodology has been applied, and adapted as appropriate, to address the specific needs of the land use assessment.

22.8.1.2 The land use assessment focuses on the potentially significant effects of the Project on land use receptors, taking into consideration the current land uses and the nature of the Project, which is predominantly a linear development (landfall(s), onshore export cable corridor and onshore substations). A large area of land will be temporarily affected during construction, however, it is likely that the majority of this can be reinstated back to the original agricultural land use once the onshore export cables are installed. Permanent land use change will take place at the onshore substations and would remain in place up until the point of decommissioning. During operation, the permanent onshore export cable corridor servitude will limit some land uses (for example, agricultural grazing or crop growing could take place within the area, however tree planting could not).

Land use receptors

22.8.1.3 Land use receptors that have the potential to be significantly affected based on the current land uses within the Onshore Red Line Boundary have been identified, as outlined in **Section 22.4.4** and based on the baseline conditions described in **Section 22.6**. As described in **Section 22.4.4** a number of land use receptors overlap with those already considered in other chapters..

22.8.1.4 The assessment takes into consideration the sensitivity of the affected receptor to change in land use and the magnitude of change from the baseline conditions resulting from the Project. This results in an evaluation of significance and an indication of likely significant effects. There is no technical guidance for assessing effects on land use, however this approach to assigning receptor sensitivity and magnitude of change follows an established assessment methodology as set out in **Chapter 5: Approach to EIA** and uses land use receptor descriptions from published EIA guidance, as follows.

22.8.1.5 **Section 22.4** explains that effects on several potential land use receptors have been scoped out of the assessment. Of the five land use categories defined in NatureScot EIA guidance (NatureScot, 2018), the following are considered in the land use assessment:

22.8.1.6 Land cover and land use categories in the EIA guidance (NatureScot, 2018) are:

- **forestry, woodland and trees** – including plantation woodland, semi natural woodland, copses, shelterbelts, roadside trees, hedgerow trees; and
- **agriculture, fields and boundaries** – including arable, horticulture, intensive livestock, permanent pasture, unimproved grassland, rough hill grazing and moorland.

Table 22.9 Land use receptors and approach to assessment

NatureScot land cover and land use category	Applicable Scottish Government illustrative land use(s) in the Scoping Boundary	Land use receptor examples	Approach to assessment
Forestry, woodland and trees	Semi-natural land (including mixed farmland, forests, hills, mountains and moors).	• members of the public visiting forested land for leisure purposes; • land managers of forested land; and • businesses operating in forested areas.	Vegetation is a key landscape element contributing to landscape character and some landscape designations, it also has the potential to influence visual effects which are considered further in **Chapter 27: Landscape and Visual**. Potential effects of the Project on international, national and local designated ecological sites, and on sensitive habitats or species, are considered further in **Chapter 23: Terrestrial Ecology and Ornithology**. Potential effects of the Project such as fragmentation of forests due to temporary construction work or permanent changes in land cover, and changes to access to / use of these areas, because of the Project are **scoped out** of the land use assessment following refinement of the design to avoid sensitive receptors. An AIA is included as **Volume 3, Appendix 23.10.** This identifies and assesses trees which may be affected by the Project and sets out the measures to protect trees during construction and decommissioning.

NatureScot land cover and land use category	Applicable Scottish Government illustrative land use(s) in the Scoping Boundary	Land use receptor examples	Approach to assessment
Agriculture, fields and boundaries	• enclosed farmland (mainly arable fields, also improved grassland and livestock farms); and • semi-natural land (including mixed farmland, forests, hills, mountains and moors).	• farmers, land managers and land owners using agricultural land for farming; • farmers, land managers and land owners using for other activities (for example, game shooting, deer stalking); and • members of the public using agricultural land for access / leisure.	Potential effects of the Project on soil quality and soil functions, including effects on agricultural land quality and the national agricultural land resource, as a result of temporary or permanent disturbance / loss are considered in **Chapter 19: Ground Conditions and Contamination**. Agriculture is a key landscape element contributing to landscape character and some landscape designations, it also has the potential to influence visual effects which are considered further **Chapter 27: Landscape and Visual**. Socio-economic effects of the Project relating to agriculture are considered in **Chapter 30: Socio-Economics**. Effects on the baseline agricultural land use including change of land use / land cover, severance of land, changes in access to agricultural land, and the introduction of new limitations to current or future agricultural land use because of the Project, are considered in the land use assessment.

22.8.2 Significance evaluation methodology

Overview

22.8.2.1 The significance level attributed to each effect has been assessed based on the value of the affected receptor and the magnitude of change resulting from the Project. The level of significance has then been determined by the combination of value and magnitude.

Value of receptor

22.8.2.2 Descriptions of receptor sensitivity used in the assessment are provided in **Table 22.10.**

Table 22.10 Sensitivity of receptor / resource

Sensitivity	Criteria / description examples
High	**Forestry, woodland and trees** – irreplaceable habitat including Ancient Woodland, semi-natural woodland, including appropriately restored plantations on Ancient Woodland Sites (PAWS), commercial forestry land undergoing necessary work / rehabilitation (for example, disease restricting ground disturbance / access to land). Vegetation that is part of nationally or locally designated area. **Agriculture, fields and boundaries** - prime agricultural land of LCA Class 1 or 2 in agricultural use. This is the land with highest and most reliable yields. Agriculture that is part of a nationally or locally designated area.
Medium	**Forestry, woodland and trees** – commercial forestry plantation (any growth stage), established trees / woodland of local importance for example, Tree Preservation Order, urban and amenity woodland. Vegetation that is part of undesignated area but providing habitat (such as scrub). **Agriculture, fields and boundaries** – land in agricultural use (excluding LCA Class 1 or 2 land in agricultural use) where activities such as grazing, crop growing or horticulture have little flexibility to relocate (for example, due to tenancy arrangements or limited local availability of similar LCA class) or need to be carried out close to specific existing infrastructure. Agriculture that is part of undesignated area.
Low	**Forestry, woodland and trees** – commercial forestry land plantation harvested and not replanted (but with no specific requirement to remain undisturbed, for instance, disease), individual and small groups of trees performing local function (such as screening, amenity). Vegetation that is part of undesignated area but not providing habitat. **Agriculture** – land in agricultural use where there is flexibility for operations to be relocated (such as grazing of non-dairy cattle where equivalent grazing land is available locally, or crop growth in alternative fields of similar LCA class).
Very low	**Forestry, woodland and trees** – not used. **Agriculture** – not used.

Magnitude of changes

22.8.2.3 Magnitude of change may be either beneficial or adverse. The criteria and examples in **Table 22.11** focus on adverse changes.

Table 22.11 Magnitude of change for land use

Magnitude of change	Description example
High	Total loss or major alteration of the land use receptor.
Medium	Loss of, or alteration to, one or more key elements of the land use receptor.
Low	Slight alteration of the land use receptor.
Very low (negligible)	Barely perceptible alteration of the land use receptor.

Significance evaluation

22.8.2.4 During the assessment of effects for each identified receptor, the sensitivity value in **Table 22.10** will be combined with the magnitude of change from **Table 22.11** to produce an overall significance rating based on the evaluation matrix shown in Plate 5.3 in **Chapter 5: Approach to EIA**. Major effects will always be determined to be significant. Moderate effects can be significant, or not significant, based on specific scenarios and professional judgement, Plate 5.3 in **Chapter 5: Approach to EIA** therefore identifies these as potentially significant. Effects assessed as a Moderate or Major rating are subject to further investigation as part of the EIA. If the impacts and effects cannot be reduced through the implementation of environmental measures then these may remain as identified significant effects.

22.8.2.5 The evaluation of significance for land use has been undertaken using professional judgement, drawing upon information about the nature of the land uses and land use receptors present, and the type of construction activity proposed, the nature of the operation of the Project and the activities required for decommissioning.

22.8.2.6 The Project has the potential to result in negative effects on land use receptors during construction, for example where construction activities have the potential to prevent or limit access to land, or result in temporary severance of land, or to change land use (for example, construction of the onshore substations. The Project could also result in negative impacts on land use if the operation of the Project creates new limitations to land use such as may be associated with land use restrictions within the permanent onshore export cable corridor servitude.

22.9 Assessment of effects: construction stage

22.9.1 Introduction

22.9.1.1 This Section provides an assessment of the effects for land use from the construction of the onshore elements of the Project.

22.9.1.2 The assessment methodology set out in **Section 22.8** has been applied to assess effects to land use from the Project.

22.9.2 Impact C1: Temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land): temporary loss of land or access to land or severance for farming, forestry or commercial activity

Overview

22.9.2.1 The maximum assessment scenario relating to the temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land): specifically, the loss of land / loss of access to land or severance for farming activity, are presented in **Table 22.7**. Where predicted effects are identified, an assessment of the magnitude of change for each effect has been completed based on the methodology provided in **Section 22.8**. The magnitude of change, and hence the significance of potential effects has been assessed on the assumption that the embedded environmental measures from **Table 22.8** have been implemented as part of the Project.

22.9.2.2 The maximum assessment scenario shown in **Table 22.7** includes all areas of temporary land / soil disturbance and / or excavation required for the construction work. Impacts on land use receptors where land use will change on a long-term basis due to the Project are assessed separately as a permanent development impact. The nature of the impact on agricultural activities will depend on the farm size and its location in relation to the onshore export cable corridor. Effects may include entire fields being temporarily inaccessible, severance of fields or farm access routes (by the linear working corridor), and disruption to rotations of crops / grazing / fallow periods between fields.

Sensitivity or value of receptor

22.9.2.3 The sensitivity of the agricultural land is considered to be **medium**, reflecting that no prime agricultural land (LCA class 1, 2 or 3.1) is present, however the land is capable of supporting mixed agriculture (arable and grazing). The land is mainly Class 3.2 and the activities undertaken on farmland within the study area are consistent with the expected scenarios for the LCA class. The land supports mixed agriculture and cultivation of a moderate range of crops. Agricultural activities observed during surveys within the study area included grazing of sheep and cattle, and production of crops including barley, wheat, oilseed rape, and possibly potato. No evidence of farm diversification was observed during surveys in the study area.

22.9.2.4 Effects on other land use receptors including water, forestry, woodland and trees, and other land uses, have been scoped out as explained in **Table 22.4**.

Magnitude of impact

22.9.2.5 Where the onshore export cable corridor runs through fields it is likely that agricultural activity in the affected field(s) will need to cease entirely during construction, even if only part of the field is required, based on the scenarios explained in the overview above. The loss will be temporary rather than permanent; however, the effect on land use will continue for a period after construction work has ceased. This is because the disturbed soils will require a recovery period to return to baseline for instance, recently replaced soil will be structurally weak and vulnerable to damage meaning that agricultural activities should be restricted during an aftercare period once construction had been completed to enable the soils to recover to baseline.

22.9.2.6 The loss of use of the land would be temporary and would occur on a phased basis over a period of years rather than across the entire onshore export cable corridor at one time. The effect will be limited to the land parcels and landowners within the Onshore Red Line Boundary, meaning that impacts on agriculture will be localised, and there is similar land in the surrounding area where similar farming activities can continue. The magnitude of impact is therefore assessed to be **low**.

Significance of residual effect

22.9.2.7 Environmental measures are outlined in the **Volume 4: Outline Construction Environmental Management Plan**, including those in the Outline Soils Management Plan, to control construction works within the onshore export cable corridor and limit damage to soils and agricultural land during temporary construction (measure M-063). Aside from this and measures M-005, M-084, M-085 and M-112 in **Table 22.8** (which avoid prime agricultural land and other sensitive receptors and has been achieved by the Project through refinement of the design and the proposed use of HDD (or similar trenchless technique), no additional environmental measures are proposed to minimise the disturbance to agricultural activities.

22.9.2.8 Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is **Minor Adverse** (**Not Significant**) in EIA terms. The construction stage would result in significant local disruption to agricultural activities within the Onshore Red Line Boundary, but not the wider area. In practice, construction will be phased over a period of years as outlined in **Section 22.4.3**, and not all areas of temporary development will be active for all Project phases, potentially enabling the baseline land use to resume within the Project construction programme.

22.9.2.9 The assessment has considered that some elements of temporary development, such as temporary construction compounds may need to remain in place for all phases.

22.10 Assessment of effects: O&M stage

22.10.1 Introduction

22.10.1.1 This Section provides an assessment of the effects for land use from the O&M of the onshore elements of the Project.

22.10.1.2 The assessment methodology set out in **Section 22.8** has been applied to assess effects to land use from the Project.

22.10.2 Impact O1: Permanent change to land use and / or land cover due to construction of permanent features including the onshore substations, the landfall(s) transition joint bays and onshore export cable corridor joint bays. Original land use cannot be reinstated as a result of the Project

Overview

22.10.2.1 The maximum assessment scenario relating to the permanent changes to land use and / or land cover for construction of permanent features including the onshore substations, the landfall(s) transition joint bays and onshore export cable corridor joint bays are presented in **Table 22.7.** Where predicted effects are identified, an assessment of the magnitude of change for each effect has been completed based on the methodology provided in **Section 22.8**. The magnitude of change, and hence the significance of potential effects has been assessed on the assumption that the embedded environmental measures from **Table 22.8** have been implemented as part of the Project.

22.10.2.2 Construction of the onshore substations, including permanent access roads, will result in a permanent change of land use from agriculture to commercial use for the operational stage of the Project. There will also be a permanent change of land use from agriculture to drainage and landscaping for the onshore substations.

22.10.2.3 The onshore export cables will generally be buried below 0.9m to 1.2m of cover material, meaning that once the onshore export cables are installed, the original topsoil and the majority of the subsoil can be reinstated to restore the land to the baseline land use of agriculture, the onshore export cable corridor is therefore not counted as an area of permanent development (it is included in the assessment of temporary construction effects). However, the landfall(s) transition joint bays, joint bays and link boxes are needed along the onshore export cable corridor to connect lengths of onshore export cable and these are considered as permanent development. Although the transition joint bays and joint bays are buried, they will only have a thin layer of soil restored above them (minimum of 150 milimtres (mm)). The link boxes will each have a 0.9m square access cover at surface and these are required to enable electrical checks and testing to be carried out on the cable system during O&M.

22.10.2.4 There will be a requirement for a change in soft land use from agricultural land to drainage and landscaping for the onshore substations. This will be accommodated in an area estimated at approximately 36ha within the Onshore Red Line Boundary in land surrounding the onshore substations, as shown in Figure 1 of **Volume 4: Outline Landscape and Architectural Strategy, Appendix A: Supporting Figures**.

Sensitivity or value of receptor

22.10.2.5 The sensitivity of the agricultural land is considered to be **medium**, reflecting that no prime agricultural land (LCA class 1, 2 or 3.1) is present, however the land is capable of supporting mixed agriculture. Within the Onshore Red Line Boundary the land is mainly class 3.2 and is used by a range of landowners / farmers for a variety of agricultural activities including grazing of sheep and cattle and arable farming. The onshore substations, where the main area of impact would occur, are located on land that is mainly Class 3.2 and used for sheep grazing.

Magnitude of impact

22.10.2.6 The magnitude of the change associated with the permanent development of the onshore substations, transition joint bays and joint bays and link boxes for the onshore export cable corridor is assessed to be **low**. This assessment takes into consideration that LCA Class 3.2 land is present throughout the Onshore Red Line Boundary (see **Figure 19.4**) and is common throughout the Grampian region, and that the permanent development would not restrict continued agricultural use in neighbouring land within the Onshore Red Line Boundary or elsewhere. In relation to the onshore substations, the land use will change from agriculture to commercial / industrial use, the agricultural land use is lost. Where transition joint bays, joint bays and link boxes are constructed, this will result in a small area of land in affected fields where cultivation activity for agriculture is not possible or is very limited, due to surface / near surface infrastructure. It is also likely that these areas would need to be kept clear for occasional onshore export cable maintenance access.

22.10.2.7 An area of approximately 36ha will be needed for drainage and landscaping purposes at the onshore substations. Most of this land occurs within a single landholding, on land which is mainly used for sheep grazing. There is similar land in the surrounding area where similar farming activities can continue. This additional change of land use therefore does not change the magnitude of impact from being **low**.

Significance of residual effect

22.10.2.8 Based on a receptor sensitivity of **medium**, and an impact magnitude of **low**, the effect is **Minor Adverse** (**Not Significant**) in EIA terms.

22.10.2.9 The assessment acknowledges the Project's commitment to the use of underground cables (environmental measure M-001) which allows the land above the onshore export cables to be reinstated for agricultural use.

22.10.2.10 The Project's commitment to minimising the permanent footprints of the onshore substations, transition joint bays and joint bays to only what is necessary for the safe O&M of the equipment, in line with environmental measure M-083, is also acknowledged. While this will help reduce the overall effect, it is unlikely to significantly reduce the land area from the maximum design scenario.

22.10.2.11 Additionally, the Project is committed to removing above-ground infrastructure and restoring sites to greenfield condition at the end of the operational period, as per environmental measure M-089. However, this measure does not mitigate the effect during the operational stage.

22.10.2.12 The Project is committed to ensuring the permanent footprints of the onshore substations, transition joint bays, and onshore export cable corridor joint bays are minimised to that required for safe O&M of the equipment to minimise permanent land take (environmental measure M-083). This will reduce the effect but is unlikely to result in a significant reduction in area from the maximum design scenario. The Project is also committed to the removal of above-ground infrastructure and restoration of sites to greenfield at the end of the operational period (environmental measure M-089); however, this measure does not reduce the effect during the operational stage.

22.10.3 Impact O2: Permanent limitation to land use due to the permanent onshore export cable corridor servitude required along cable routes during operation

Overview

22.10.3.1 The maximum assessment scenario relating to the permanent limitation to land use and / or land cover as a result of the Project, specifically the land included in the permanent onshore export cable corridor servitude during the operational stage, is presented in **Table 22.7** Where predicted effects are identified, an assessment of the magnitude of change for each effect has been completed based on the methodology provided in **Table 22.11**. The magnitude of change, and hence the significance of potential effects has been assessed on the assumption that the embedded environmental measures from **Table 22.8** have been implemented as part of the Project.

22.10.3.2 This assessment excludes areas where the landfall(s) transition joint bays, onshore export cable corridor joint bays and link boxes are located, as these are considered permanent infrastructure and assessed separately due to their more restrictive implications for land use.

22.10.3.3 Specific restrictions within the permanent onshore export cable corridor servitude are not yet known, however, regarding the baseline land use of agriculture, the relevant restrictions are likely to be in relation to excavation activities and some planting, notably tree planting. There are also likely to be restrictions on buildings and potentially structures. Whilst it is likely that there would be a requirement for the landowner / operator to notify the cable operator prior to these activities and request authorisation, they would not necessarily be prohibited within the entire area of the permanent onshore export cable corridor servitude.

22.10.3.4 In relation to forestry, the permanent onshore export cable corridor servitude will also apply within the commercial conifer plantations in proximity to the landfall(s). The onshore export cables running below areas of forestry will be at greater depth than elsewhere in the onshore export cable corridor due to use of trenchless crossings to avoid physical disturbance to forested areas. The specific requirements for the permanent onshore export cable corridor servitude would be confirmed at the detailed design stage, in consultation with the forest / plantation owners.

Sensitivity or value of receptor

22.10.3.5 The sensitivity of the agricultural land is considered to be **medium**, reflecting that no prime agricultural land is present, however the land is capable of supporting mixed agriculture. The land is mainly Class 3.2 and is used by a range of landowners / farmers for a variety of agricultural activities including grazing of sheep and cattle and arable farming.

22.10.3.6 The areas of commercial forest and other woodland and trees within the Onshore Red Line Boundary are also assessed to have **medium** sensitivity, based on the criteria in **Table 22.10.**

Magnitude of impact

22.10.3.7 The magnitude of change due to the impact of the permanent onshore export cable corridor servitude on agricultural activities is assessed to be **low**, based on a slight alteration of land use. There are foreseeable scenarios where some proposed farming activities (tree planting, some excavation, erection of some farm structures or buildings) would not be permissible within the permanent onshore export cable corridor servitude or would require approval. Certain activities may be completely restricted near onshore export cables. For

authorised activities, there may be a condition in the permanent onshore export cable corridor servitude requiring them to cease if maintenance of the onshore export cables or associated infrastructure (joint bays etc.) is needed. However, in general, agricultural activities currently undertaken within the Onshore Red Line Boundary, which include grazing of livestock, planting of grasses, cultivation and harvesting of crops, are likely to be possible within the permanent onshore export cable corridor servitude. The activities most likely to be affected during the operational stage of the Project include actions that may be considered by landowners / farmers as part of agri-environment schemes – such as pond creation, tree planting, or habitat improvement for instance, activities requiring soil disturbance at depth and which are typically undertaken on a long-term (for instance, decades or longer) basis.

22.10.3.8 The magnitude of change due to the impact of the permanent onshore export cable corridor servitude on forestry and woodland is also assessed to be **low**, based on a slight alteration of land use. Due to the deeper burial of the onshore export cables by the use of HDD (or similar trenchless technique), this limits likely constraints to future forestry activities within the commercial forestry areas, however it is anticipated the landowner / operators would need to obtain permission for some forestry activities and that some limited restriction on these activities is possible.

Significance of residual effect

22.10.3.9 The measures in **Table 22.8** include the use of HDD (or similar trenchless technique) to avoid direct impacts to forestry and woodland (measure M-085), and measure M-066 which is a commitment to the permanent onshore export cable corridor servitude for the onshore export cable route being kept to the minimum width needed for safe access for onshore export cable maintenance or replacement purposes during operation of the Project. There is no further applicable mitigation to reduce the impact on agricultural land. Overall, it is predicted that the sensitivity of the receptors is **medium**, and the magnitude is **low**. The effect is **Minor Adverse** (**Not Significant**) in EIA terms. The maximum design scenario is a reasonable worst-case and therefore the area affected by the permanent onshore export cable corridor servitude is likely to be smaller.

22.11 Assessment of effects: decommissioning stage

22.11.1 Introduction

22.11.1.1 This Section provides an assessment of the effects for land use from the decommissioning of the onshore elements of the Project.

22.11.1.2 The assessment methodology set out in **Section 22.8** has been applied to assess effects to land use from the Project.

22.11.1.3 As outlined in **Chapter 4: Project Description**, at decommissioning, the onshore substations and associated access roads will be removed and the site reinstated. The decommissioning works are likely to be undertaken in reverse to the sequence of construction works and involve similar types and levels of equipment and vehicles. The onshore substation site will be restored to its original state or made suitable for an alternative use. It is anticipated that the onshore export cables will be left in-situ with ends cut, sealed and buried to minimise environmental effects associated with removal. The underground structures of the joint bays, FOC junction boxes and link boxes will be removed only if it is feasible with minimal environmental disturbance or if their removal is required to return the land to its current agricultural use.

22.11.2 Impact D1: Temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land): temporary loss of land or access to land or severance for farming, forestry or commercial activity

Overview

22.11.2.1 Measure M-089 in **Table 22.8** commits **t**he Project to the removal of above-ground infrastructure and restoration of land at the end of the operational stage. The maximum assessment scenario relating to the temporary change to land use and / or land cover during decommissioning, due to temporary compounds temporarily restricting access to / use of land), is presented in **Table 22.7.** The maximum assessment scenario relating to the temporary change to land use and / or land cover during decommissioning, due to temporary compounds temporarily restricting access to / use of land), is presented in **Table 22.7**. Where predicted effects are identified, an assessment of the magnitude of change for each effect has been completed based on the methodology provided in **Section 22.8.** The magnitude of change, and hence the significance of potential effects has been assessed on the assumption that the embedded environmental measures from **Table 22.8** have been implemented as part of the Project.

Sensitivity or value of receptor

22.11.2.2 It is assumed that some temporary land take will be needed for decommissioning of the onshore substations and associated roads, and that this may require use of adjoining or nearby agricultural land. The sensitivity of the agricultural land is **medium**, based on there being no prime agricultural land present within the Onshore Red Line Boundary, however the land is capable of supporting mixed agriculture. At the onshore substations, as elsewhere, the land is mainly LCA Class 3.2, and the baseline surveys confirm that it is currently used by a range of landowners / farmers for agricultural activities including grazing of sheep and cattle and arable farming. It is assumed that similar activities would be taking place at the point of decommissioning of the Project.

Magnitude of impact

22.11.2.3 The decommissioning stage is anticipated to be of shorter duration and smaller scale than the construction stage, with works largely confined to the existing developed footprint of the onshore substations and onshore export cable corridor. In addition, it is noted that buried cable infrastructure would remain in the ground to minimise the need for environmental disturbance.

22.11.2.4 As the loss of agricultural land to facilitate the decommissioning stage would be temporary and of shorter duration and scale, the magnitude of impact is assessed as a worst case to be **low**.

Significance of residual effect

22.11.2.5 Measures in the **Volume 4: Outline Construction Environmental Management Plan**, including those in the Outline SMP, to control works to limit damage to soils and agricultural land during construction work would be applied for decommissioning. Measure M-112 in **Table 22.8** to avoid development on prime agricultural land, would also be applied during decommissioning. There are no further environmental measures to minimise the disturbance to agricultural activities. The impact would be much smaller in geographical extent than the construction impact. Overall, it is predicted that the sensitivity of the receptor is **medium**, and the magnitude is **low**. The effect is **Minor Adverse** (**Not Significant**) in EIA terms.

22.12 Summary of effects

22.12.1.1 A summary of the effects arising from the construction, O&M and decommissioning stages of the Project in relation to land use are summarised in **Table 22.12**.

Table 22.12 Summary of effects during the construction, O&M and decommissioning stage of the Project on land use

Receptor	Sensitivity / value	Activity and potential effect	Embedded environmental measures	Magnitude of effect	Significance of effects
Construction					
Agriculture	**Medium**	C1: Temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land): Temporary loss of land or access to land or severance for farming, forestry and commercial activity.	M-005 M-063 M-084 M-085 M-112	**Low** magnitude of impact.	**Minor Adverse effect** (**Not Significant**).
O&M					
Agriculture	**Medium**	O1: Permanent change to land use and / or land cover due to construction of permanent features including the onshore substations, the landfall(s) transition joint bays and onshore export cable corridor joint bays, and change of land use from agriculture to drainage and landscaping for the onshore substations.	M-001 M-083 M-089	**Low** magnitude of impact.	**Minor Adverse effect** (**Not Significant**).

Receptor	Sensitivity / value	Activity and potential effect	Embedded environmental measures	Magnitude of effect	Significance of effects
		Original land use cannot be reinstated as a result of the Project.			
Agriculture, Forestry.	**Medium**	O2: Permanent limitation to land use due to the permanent onshore export cable corridor servitude required along cable routes during operation.	M-066 M-085	**Low** magnitude of impact.	**Minor Adverse effect** (**Not Significant**).
Decommissioning					
Agriculture	**Medium**	D1: Temporary change to land use and / or land cover during construction (working corridor / temporary compounds temporarily restricting access to / use of land): Temporary loss of land or access to land or severance for farming, forestry and commercial activity.	M-112	**Low** magnitude of impact.	**Minor Adverse effect** (**Not Significant**).

22.13 Transboundary effects

22.13.1.1 Transboundary effects arise when impacts from a development with one European Economic Area (EEA) State affects the environment of another EEA State(s). A screening of transboundary effects has been carried out and is presented in Appendix 4B of the Scoping Report (MarramWind Ltd., 2023).

22.13.1.2 Based on the knowledge of the baseline environment, the nature of planned works and the wealth of evidence on the potential for impact from such projects more widely, there are not considered to be any transboundary effects on land use receptors from the Project.

22.14 Inter-related effects

22.14.1.1 A description and assessment of the likely inter-related effects arising from the Project on land use is provided in **Chapter 32: Inter-Related Effects**.

22.15 Assessment of cumulative effects

22.15.1.1 A description and assessment of the cumulative effects arising from the Project on land use is provided in **Chapter 33: Cumulative Effects Assessment**.

22.16 Summary of residual likely significant effects

22.16.1.1 There are no residual likely significant effects on land use receptors assessed in the EIA Report Chapter.

22.17 References

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22.18 Glossary of terms and abbreviations

22.18.1 Abbreviations

Acronym	Definition
AIA	Arboricultural Impact Assessment
CEMP	Construction Environmental Management Plan
EEA	European Economic Area
EIA	Environmental Impact Assessment
FOC	Fibre Optic Cable
HDD	Horizontal Directional Drilling
LCA	Land Capability for Agriculture
LDP	Local Development Plan
LNC	Local Nature Conservation
NGR	National Grid Reference
NWSS	Native Woodland Survey of Scotland
NPF4	National Planning Framework 4
O&M	Operation and maintenance
PAWS	Plantations on Ancient Woodland Sites
PV	Photovoltaic
SEPA	Scottish Environment Protection Agency
SMP	Soil Management Plan
SNH	Scottish Natural Heritage
SSEN	Scottish and Southern Electricity Network
WTG	Wind Turbine Generator

22.18.2 Glossary of terms

Term	Definition
Droughtiness	Droughtiness is calculated in agricultural land capability classification to define the availability of water for crop growth based on soil type and climatic factors (as a limitation to land capability), with droughtiness being a tendency towards there being insufficient water available for crop growth.
Key holing	A forestry management technique involving the selective removal of small, targeted patches of trees (or "keyholes") rather than large-scale felling. This approach minimises environmental disruption, reduces waste material, and helps prevent nutrient surges that could affect local water quality. It is often recommended in environmental assessments to align with sustainable land use practices and existing Forest Plans.
LCA Classification	The LCA Classification devised by the Macauley Land Use Institute (now the James Hutton Institute) classifies land based on its potential for growing different types of crops or for grazing use, taking into consideration soils, climate and landscape. The grading system is summarised below, from highest to lowest land capability, with prime agricultural land defined as land in Classes 1, 2 or 3.1: • Class 1: Land capable of producing a very wide range of crops. (Prime agricultural land); • Class 2: Land capable of producing a wide range of crops. (Prime agricultural land); • Class 3.1: Land capable of producing consistently high yields of a narrow range of crops and/ or moderate yields of a wider range. Short grass leys are common. (Prime agricultural land); • Class 3.2: Land capable of average production though high yields of barley, oats and grass can be obtained. Grass leys are common; • Class 4.1: Land capable of producing a narrow range of crops, primarily grassland with short arable breaks of forage crops and cereal; • 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. The LCA classification is based primarily on climate, several soil properties, (for example depth and stoniness), wetness, erosion risk and slope.

Term	Definition
	There have been two phases of LCA mapping in Scotland the first was at 1:250,000 scale in 1981 and a later 1:50,000 scale phase in 1987. Several assumptions underpin the classification. The classification, as defined in Macauley Institute (2006): • *"is designed to assess the value of land for agriculture;* • *is based largely on physical characteristics and the degree to which they limit agricultural flexibility;* • *does not group land according to its most profitable use;* • *assumes a satisfactory level of management;* • *does not include location, farm structure and condition and access to markets and therefore these criteria do not influence grading; and* • *is based on current knowledge; revisions may be required with new experience or technological innovations."*
Servitude	Servitude refers topermanent rights secured for utilities/ infrastructure placed in or on the ground between the utility/ infrastructure owner and the landowner. Rights are typically agreed via voluntary negotiation with landowners or by following the compulsory acquisition process to secure equivalent rights if required. The rights will typically restrict some land use activities that could impact the function or physical integrity of the utility/ infrastructure, or limit access to that utility/ infrastructure for repair / maintenance.

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