Scottish & Southern Electricity Networks

TRANSMISSION

Spittal to Loch Buidhe to Beauly 400 kV OHL Connection

Environmental Impact Assessment

Volume 5 | Technical Appendix

Appendix 8.7 | Report to Inform Habitat Regulations Appraisal (HRA Screening Report)

July 2025

Scottish & Southern Electricity Networks

TRANSMISSION

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Figures

1 INTRODUCTION

1.1 The Proposal

1.1.1 Scottish Hydro Electric Transmission plc ('the Applicant') operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission") owns, operates and develops the high voltage electricity transmission system in the north of Scotland and the Scottish islands. It holds a transmission licence under the Electricity Act 1989 and is subject to a statutory duty to '*develop and maintain an efficient, coordinated and economical system of electricity transmission.*' SSEN Transmission also has obligations to offer non-discriminatory terms for connection to the transmission system, both for new generation and for new sources of electricity demand.

1.1.2 Environmental Resources Management Ltd (ERM) has been commissioned by SSEN Transmission to assess the potential impacts associated with the proposed new Spittal to Loch Buidhe to Beauly 400 kV Overhead Line (OHL) Connection.

1.1.3 SSEN Transmission is submitting an application for consent to construct and operate a new double circuit steel structure 400 kilovolt (kV) OHL to connect into new substation sites at Spittal, Loch Buidhe and Beauly. The project is referred to as the Spittal to Loch Buidhe to Beauly 400kV Connection Project (and hereafter as 'the Proposed Development') and will be contained wholly within the local planning authority area of The Highland Council (THC).

1.1.4 Extensive studies completed to inform the Electricity System Operator's (ESO's) 'Pathway to 2030' Holistic Network Design (HND) study have identified the need to reinforce the onshore electricity transmission network between Spittal and Beauly. Providing a new 400 kV OHL connection between these locations enables the significant power transfer needed to transmit power from future large scale onshore and offshore sources of low carbon renewable energy generation.

1.2 Purpose of the Habitats Regulations Appraisal Report

1.2.1 This document has been produced to inform the Habitats Regulations Appraisal (HRA) process for the Proposed Development. It provides information to enable the screening of the Proposed Development with respect to its potential to have a likely significant effect (LSE) on European and Ramsar sites of nature conservation importance. This document forms the **Stage 1 Screening** stage of the HRA process (as described in **Section 3 Methodology**).

1.3 The EIA Regulations

1.3.1 An application for consent for the OHL will be made to the Scottish Ministers under Section 37 of the Electricity Act 1989, along with a request for a direction that planning permission be deemed to be granted under section 57 (2) of the Town and Country Planning (Scotland) Act 1997, as amended, for construction and operation of the OHL and carrying out of ancillary works.

1.3.2 For the purposes of the application under Section 57 (2), the ancillary development will include:

- the formation of 'bellmouths' (i.e. junctions with curved entry and exit points) for connections to public roads;
- temporary and permanent construction access tracks and tower working areas;
- cable sealing end compounds, which are required at the interface between overhead lines and underground cables;

- construction compounds (where these are currently known);
- 'borrow pits' to provide stone (where these are currently known);
- vegetation clearance and management; and
- other temporary measures required during construction.

1.3.3 Underground cables could be required in association with the Proposed Development.

1.3.4 The applicable EIA Regulations are the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017, hereafter referred to as the "EIA Regulations". Schedule 1 of the EIA Regulations lists projects where EIA is mandatory. The Proposed Development is categorised as 'Schedule 1' under category (3) "*construction of overhead electrical power lines with a voltage of 220 kilovolts or more and a length of more than 15 kilometres*". The Applicant is therefore obliged to prepare an EIA Report to accompany the application for consent, in accordance with the requirements of the EIA Regulations.

1.3.5 Modification of the existing electricity transmission network (132 kV and above) will be required in specific areas to accommodate the new OHL. These works will generally form part of the application for consent under Section 37 of the Electricity Act 1989 for the Proposed Development and will be assessed as part of the EIA

1.3.6 Modification of the existing electricity distribution network in some areas is also likely to be required to accommodate the new OHL. These works will generally form part of the application for consent under Section 37 of the Electricity Act 1989 for the Proposed Development and will be assessed as part of the EIA

1.3.7 The substations works are being progressed separately and do not form part of the Proposed Development. These works consist of proposed new substations at Spittal (Banniskirk), Loch Buidhe (Carnaig) and Beauly (Fanellan) and upgrades to the existing substations at these locations. Planning permission for the proposed and upgraded substations and for the connections to the proposed OHL will be sought under the Town and Country Planning (Scotland) Act 1997 (as amended). The potential for 'intra-project' cumulative effects (e.g. additional effects due to the interaction between these Accelerated Strategic Transmission Investment (ASTI) projects) will be assessed as part of the EIA. The connections between the substations and the proposed OHL will also be assessed as part of the EIA.

1.4 Corridor, Route and Alignment Selection

1.4.1 A detailed route selection process was undertaken to identify an OHL alignment which best balanced environmental, technical and economic factors. Environmental designations and key sensitive receptors were avoided where possible throughout the process. The process typically consists of three stages: 'corridor', 'route', and 'alignment'. A combined corridor and routeing consultation exercise was undertaken initially for the Proposed Development, since corridor and route options did not differ significantly for those stages in relation to engineering, environmental and other constraints. This was followed by the identification of a Potential Alignment and Alternative Alignments, before selection of a Preferred Alignment. At each stage, options were identified, appraised and then consulted on before decisions were made and the design moved to the following stage. Each stage presented more detailed options than the previous, to ultimately arrive at the proposed alignment which was taken forwards to be studied in more detail through the EIA process. Further detail on the routing process are presented in **Chapter 4 The Routing Process and Alternatives.**

1.4.2 The location of the proposed new substations required at Spittal, Loch Buidhe and Beauly, into which the Proposed Development will connect, has been informed by separate site selection studies and consultation with statutory consultees, key stakeholders and the public.

2 DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Introduction

2.1.1 The Proposed Development would include the following works, for which Section 37 consent under the 1989 Act and deemed planning permission under the Town and Country Planning (Scotland) Act 1997 ('the Planning Act') is sought:

- The installation and operation of approximately 96 km of new double circuit 400 kV OHL on steel lattice towers between the proposed Banniskirk (ND 15905 56823) and Carnaig (NH 65053 97458) 400 kV substations;
- The installation and operation of approximately 77 km of new double circuit 400 kV OHL on steel lattice towers between the proposed Carnaig and Fanellan (NH 48534 43208) 400 kV substations; and
- Permanent diversion works required to existing 132 kV and 275 kV OHLs (referred to within the EIA Report as special arrangements), of approximately 18 km in total, to enable the construction of the Proposed Development including the temporary diversion works required to construct the permanent diversions.

2.1.2 The Proposed Development is shown in **Volume 3, Figure 3.1: The Proposed Development**. Tower numbers are labelled as North (N) 1 to 297 for towers between the proposed substations at Banniskirk and Carnaig (Sections A and B) and South (S) 1 to 232 for towers between the proposed substations at Carnaig and Fanellan (Section C, D and E).

2.2 Ancillary Development for which Deemed Planning Permission is Sought

2.2.1 The following works would be required as part of the Proposed Development, or to facilitate its construction and operation:

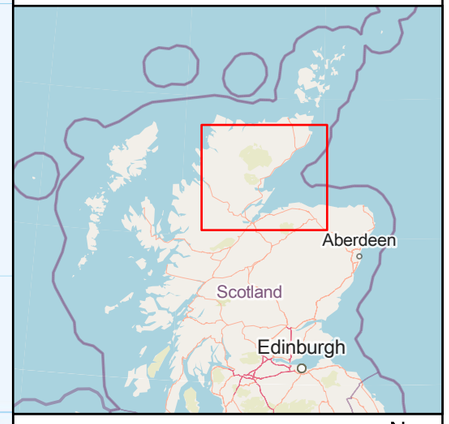
- The formation of access tracks (permanent, temporary, and upgrades to existing tracks) and the installation of structures, for example, bridges and culverts to facilitate access;
- Public road improvements (PRI) which would be required in some areas to facilitate construction traffic;
- The upgrade of existing, or creation of new, 'bellmouths' (i.e. junctions with curved entry and exit points) at public road access points;
- Other temporary measures required during construction, such as measures to protect existing infrastructure and water crossings during construction (scaffolding etc.);
- Formation of flat areas from which the conductor will be pulled during construction, which will contain earthed metal working surfaces referred to as Equipotential Zones (EPZs);
- Working areas around infrastructure to facilitate construction;
- Removal of redundant sections of the existing OHLs, following construction and energisation of the permanent diversion works; and
- Tree felling and vegetation clearance to facilitate construction and operation of the Proposed Development, to comply with the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002[1].

2.2.2 The location of the Proposed Development is illustrated in **Figure 2.1.**

[1] The Electricity Safety, Quality and Continuity Regulations (2002), available at https://www.legislation.gov.uk/uksi/2002/2665/contents/made

Alignment Section

- Section A
- Section B
- Section C
- Section D
- Section E



0 5 10 15 20

Kilometers

N

SCALE: See Scale Bar	VERSION: A02
SIZE: A3	DRAWN: WB
PROJECT: 0720281	CHECKED: PW
DATE: 30/06/2025	APPROVED: KG

Spittal - Loch Buidhe - Beauly 400kV Connection
Figure 1
Site Location

ERM

Scottish & Southern Electricity Networks TRANSMISSION

PROJECTION: British National Grid

Path: \\uksprdgisfs01\Data\London\Projects\0652629 - SSE Beauly to Loch Buidhe\Maps\Restored\0720281 - SLBB - Ad-hoc Map Requests.aprx\0720281 - SLBB - HRA - Overview - A02

2.3 OHL Design

Physical Characteristics of the OHL

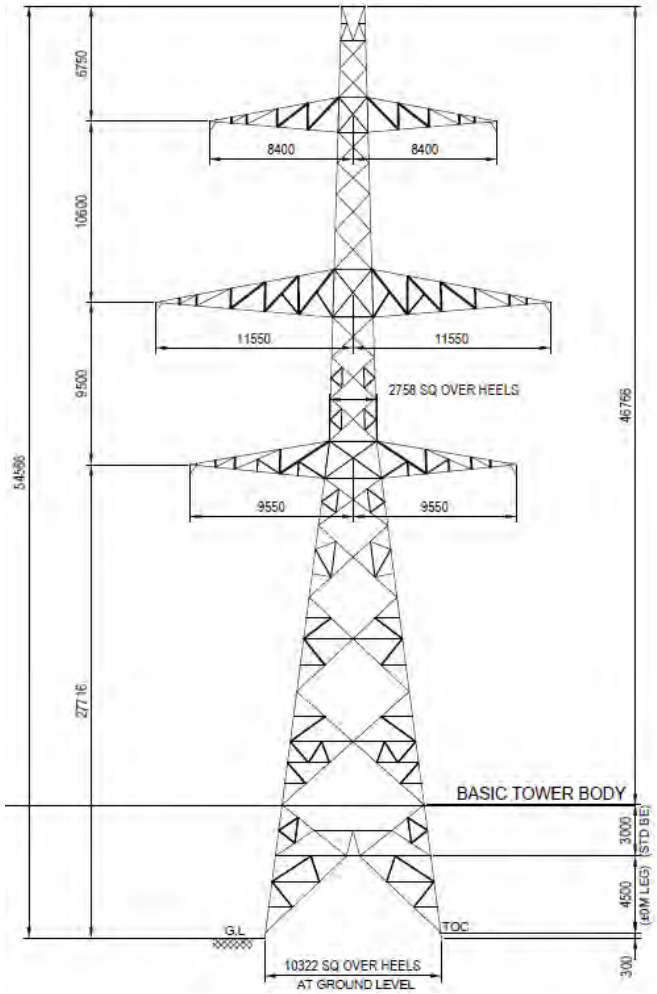
2.3.2 The steel structures will be of lattice design from the SSEN Transmission AS4 tower suite. The tower numbers and tower design types are presented in **Volume 5, Appendix 3.1: Indicative Tower Schedule** and illustrated on **Volume 3: Figure 3.1: The Proposed Development**.

2.3.3 The proposed steel lattice towers will support six conductor bundles (three electrical wires per bundle) on six cross-arms (three on each side) and an earth wire between the peaks. The span lengths between towers will vary depending on topography and altitude but would be approximately 350 m apart on average. Exact heights and the distances between towers will be determined after a detailed line survey.

2.3.4 Typical tower designs can be seen in **Figure 2.2** and a schematic of the proposed steel lattice towers is shown in **Figure 2.3**. Further details on the proposed towers are presented in **Volume 2, Chapter 3: Description of the Proposed Development**.

Figure 2.2 Existing AS4 Steel Lattice Tower Design

Figure 2.3 Proposed AS4 Steel Lattice Tower Typical Schematic



2.4 Typical Construction Activities for OHL Infrastructure

2.4.1 High voltage OHL construction typically follows a standard sequence of events as follows:

- Phase 1 – enabling works;
- Phase 2 – OHL construction;
- Phase 3 – OHL commissioning; and
- Phase 4 – re-instatement.

2.4.2 Further detail on typical construction activities and work methods will be described in the **Volume 2, Chapter 3: Description of the Proposed Development**. An outline of the likely programme, phasing and working methods is provided here for the purpose of informing the HRA.

Construction Programme

2.4.3 It is anticipated that construction of the Proposed Development would take place over a 48 month period (approximately), following the granting of consents and discharge of pre-commencement conditions. A further seven months (approximately) would be required for dismantling works associated with the existing OHL

2.5 Construction Practices and Phasing

Phase 1 - Enabling Work

Existing Distribution Lines

2.5.2 Works will be required to some existing electricity distribution network infrastructure to facilitate safe working and operating conditions given the proximity of the existing OHLs to the proposed OHL. It is anticipated that some of these network assets may be realigned or partially undergrounded in some locations to make way for the Proposed Development. Specific details are not available at this stage, but it is anticipated that any works would be carried out under Permitted Development Rights. For electricity distribution infrastructure these works do not form part of the Proposed Development.

Existing Transmission Lines

2.5.3 Special arrangement works will also be required, i.e. a permanent diversion to existing 132 kV and 275 kV transmission network infrastructure. These works form part of the application for Section 37 consent where required and are assessed as part of the EIA.

Road Improvements and Access

2.5.4 The access strategy will be described in the EIA Report and application for Section 37 consent with typical junction/access proposals included, subject to on-going development during the design process.

2.5.5 Where possible, existing access tracks will be used and upgraded as required. New access tracks may be required and where there is a justified long-term requirement, they will be left in place.

2.5.6 Where ground conditions permit, it is preferable to construct the infrastructure without an access track (for example on dry and level pasture). Temporary matting may be used in sensitive areas subject to an assessment of gradients and ground conditions.

2.5.7 New access tracks (permanent or temporary) would generally be constructed using a geotextile, with approximately 200 mm of crushed and compacted stone laid on top. Tracks may be floated over areas of peat; alternatively cut and fill approaches may be used, subject to ground conditions and gradients.

Forestry Clearance

2.5.8 The Proposed Development would pass through or close to areas of woodland and commercial forestry. Construction of the Proposed Development will require the removal of sections of commercial forest, which will be undertaken in consultation with Scottish Forestry and affected landowners.

2.5.9 After felling, any timber removed that is commercially viable would be sold and the remaining forest material would be dealt with in a way that delivers the best practicable environmental outcome and is compliant with waste regulations.

2.5.10 In circumstances when the Proposed Development passes through areas of woodland or forestry, an Operational Corridor would be required. The width of this corridor would be variable depending on the nature of the woodland or forestry.

Temporary Site Compounds

2.5.11 It is currently anticipated that a number of construction compounds and laydown areas would be required given the scale of the Proposed Development. These are associated works and do not form part of the consent application. The locations of the temporary site compounds will be confirmed by the Principal Contractors once identified.

Phase 2 – Construction Works

Foundations

2.5.12 Different approaches to forming foundations may be used for steel lattice towers, subject to ground conditions at each location. These are likely to comprise pad and chimney; driven concrete, Continuous Flight Auger (CFA) Pile, tube and micro pile; or rock anchor.

2.5.13 Foundation types and designs for each tower will be confirmed following detailed geotechnical investigation at each position.

Steel Lattice Tower Erection

2.5.14 Tower construction can typically commence two weeks after the foundations have been cast, subject to weather conditions and concrete curing rates. Tower steelwork would be delivered to each tower construction site either as individual steel members or as prefabricated panels, depending on the method of installation and the available access. A working area, up to approximately 85 m by 85 m (7225 m^2), is required at each tower location to facilitate access, laydown and assembly.

Conductor Stringing

2.5.15 The conductor would be delivered to Site on wooden drums in pre-determined pulling section lengths. Prior to stringing the conductors, temporary protection measures (e.g., netted scaffolds), would be required across public roads and existing access tracks.

2.5.16 Conductor stringing equipment (i.e. winches, tensioners and ancillary equipment) are set out at either end of pre-selected sections of the OHL.

2.5.17 Prior to wiring operations, EPZ pulling positions need to be established. The typical size of a working area required for an EPZ pulling position is approximately 50 m by 50 m. This would likely be set up on trackway panels. As conductors are required to be pulled in opposite directions, two EPZ 50 m by 50 m trackway panelled pulling locations are required at each respective pulling tower (one on the upside and one on the downside of the tower).

2.5.18 Pilot wires would be pulled through the section to be strung. These would be hung on blocks (wheels) at each suspension tower and connected to a winch and tensioner at the respective end of the section. The winch, in conjunction with the tensioner, is used to pull the pilot wires between the structures. The conductor is pulled via the pilot wires through the section under tension to avoid contact with the ground and any underrunning obstacles. Once the conductor has been strung between the ends of the section it is then tensioned and permanently clamped at each pole / tower.

Phase 3 – Commissioning

2.5.19 The OHL and support towers will then be subject to an inspection and snagging process. This allows the Principal Contractors and SSEN Transmission to check that the works have been built to specification and are fit to energise. The Proposed Development will also go through a commissioning procedure for the switchgear, communications and protection controls through the proposed new substations at Banniskirk, Carnaig and Fanellan. The circuits will then be energised from the new substations in a phased sequence.

Phase 4 – Reinstatement

2.5.20 Following commissioning of the Proposed Development, it is anticipated that all construction sites will be reinstated and restored. Reinstatement would form part of the contract obligations for the Principal Contractors and would include the removal of all temporary access tracks and work sites around the tower locations and the re-vegetation of all construction compounds.

2.6 Construction Employment and Hours of Work

2.6.1 Employment of construction staff would be the responsibility of the Principal Contractors. However, SSEN Transmission encourages the Principal Contractors to make use of suitable labour and resources from areas local to the location of the works. It is envisaged that there would be a number of separate teams working at the same time at different locations along the Proposed Development. The resource levels would be dependent on the final construction sequence and would be determined by the Principal Contractors.

2.6.2 Construction working is likely to be during daytime periods only. Working hours are anticipated seven days a week between approximately 07.00 to 19.00 during British Summer Time (BST) and 07.00 to 18.00 during Greenwich Mean Time (GMT), seven days a week.

2.7 Construction Traffic and Site Compounds

2.7.1 Construction of the Proposed Development would give rise to regular numbers of staff transport movements, with work crews travelling to work site areas from site compound areas that will be identified by the Principal Contractors.

2.7.2 A Construction Traffic Management Plan (CTMP) will be prepared by the Principal Contractors, in consultation with SSEN Transmission, THC and Transport Scotland. The CTMP will describe all mitigation and signage measures that are proposed on the public road network. An Outline CTMP is included in **Volume 5, Appendix 14.5.**

2.8 Operation and Maintenance

2.8.1 In general, OHLs require very little maintenance. Regular inspections are undertaken to identify any unacceptable deterioration of components, so that they can be replaced. Inclement weather, storms or lightning can cause damage to either the insulators or the conductors on OHLs. If conductors are damaged, short sections may have to be replaced.

2.8.2 During the operation of the Proposed Development, it will be necessary to manage vegetation along the operational corridor to maintain required safety clearance distances.

2.9 Decommissioning the Proposed Development

2.9.1 The Proposed Development would not have a fixed operational life. The effects associated with the construction phase can be considered to be representative of worst-case decommissioning effects, and therefore no separate assessment on decommissioning has been undertaken as part of the EIA Report.

2.10 Requirement for Habitats Regulations Appraisal

2.10.1 Where a development has the potential, either alone or in combination with other plans or projects, to result in likely significant effects on one or more European sites[2],[3], it is subject to the requirements of The Conservation of Habitats and Species Regulations (2017) (the Habitats Regulations) with regards to Section 37 developments, and the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended in Scotland) for Town and Country Planning developments.

2.10.2 If a development is likely to affect a European site and/or a European marine site, a report must be provided with the application showing the site(s) that may be affected together with sufficient information to enable the Competent Authority to undertake an HRA. For the Proposed Development, the Competent Authority is the Scottish Ministers, who are advised by NatureScot.

[2] These are Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs). this protection is also extended to proposed SPAs and proposed SACs. Where Ramsar site interests coincide with qualifying interests protected under an SPA or an SAC it is Scottish government policy to extend the same protection to these features.

[3] Scottish Government (2019). Implementation of Scottish Government policy on protecting Ramsar sites.

3 METHODOLOGY

3.1 Introduction

3.1.1 The approach to the HRA has followed that set out in the Conservation of Habitats and Species Regulations 2017, as amended ('The Habitats Regulations') and NatureScot guidance on the consideration of plans or projects affecting SACs and SPAs [4], [5], [6]. It has also taken account of a range of other guidance material including the DTA Publications HRA Handbook 7 and that produced by the European Commission (EC) 2018a [8], 2018b [9], 2007 [10], 2002 [11].

3.2 Overview of HRA Process

3.2.1 The HRA process comprises four main stages:

- **Stage 1 Screening** to identify the likely effects of a project on a European site and consider whether the effects are likely to be significant.
- **Stage 2 Appropriate Assessment** to determine whether the integrity of the European site will be adversely affected by the Project.
- **Stage 3 Assessment of Alternative Solutions** to establish if there are any that will result in a lesser effect on the European site.
- **Stage 4 Imperative Reasons of Overriding Public Interest (IROPI)** and **Compensatory Measures** to establish whether it is necessary for the project to proceed despite the effects on the European site, and to confirm that necessary compensatory measures are in place to maintain the coherence of the National Site Network.

3.2.2 The focus of this report is **Stage 1 Screening**, which is discussed in more detail below.

3.3 Stage 1 – Screening

3.3.1 The screening stage examines the likely effects of a project either alone, or in combination with other projects and plans on a European site, and seeks to answer the question "can it be concluded that no likely significant effect will occur?"

3.3.2 To determine if the project is likely to have any significant effects on the designated sites the following issues have been considered:

- Could the proposals affect the qualifying interest and are they sensitive/vulnerable to the effect?;
- The probability of the effect happening;
- The likely consequences for the site's conservation objectives if the effect occurred; and
- The magnitude, duration and reversibility of the effect.

[4] NatureScot (Updated 2025) Habitats Regulations Appraisal (HRA) Guidance. Accessed July 2025 at https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra

[5] NatureScot (2014). European Site Casework Guidance – How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

[6] NatureScot (2019). Guidance Note - The handling of mitigation in Habitats Regulations Appraisal - the People Over Wind CJEU judgement.

[7] Tyldesley, D. and Chapman, C. (2013) The Habitats Regulations Assessment Handbook, December 2024 edition UK, DTA Publications Limited.

[8] European Commission (2018). Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

[9] European Commission (2018). Guidance on energy transmission Infrastructure and EU nature legislation.

[10] European Commission (2007). Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC.

[11] European Commission (2002). Assessment of plans and projects significantly affecting Natura 2000 sites.

3.3.3 The objective of the screening stage is to conclude whether:

- No likely significant effect will occur;
- A likely significant effect will occur; or
- It cannot be concluded that there will be no likely significant effect.

3.3.4 If the screening stage concludes the second or third outcome, then an Appropriate Assessment (AA) is triggered. The implications of the identified likely significant effect(s) on the European designated site, in view of its specific conservation objectives and qualifying features and the nature, scale and location of the potential impact should be assessed. The term Habitats Regulations Appraisal encompasses both the initial screening stage and, where required, the follow-on AA stage.

3.3.5 NatureScot's internal guidance, which includes consideration of case law such as the Waddenzee judgement, has been followed for the screening assessment. Key points include:

- that an effect is likely if it 'cannot be excluded on the basis of objective information'.
- the test of significance considers whether a project could undermine the site's conservation objectives. The assessment of that risk must be made in the light of the specific characteristics and environmental conditions of the site concerned and should be considered on a case-by-case basis.
- the potential for effects 'in-combination' with other plans and projects will be considered at the screening stage.

3.3.6 Recent case law has also confirmed that measures intended to avoid, or reduce, the harmful effects of a project on a European site should not be taken into account at the screening stage (C-323/17 People over Wind). Such matters are to be taken into account as part of an Appropriate Assessment.

3.3.7 The HRA screening report has considered the impacts of the Proposed Development and the potential for impacts on designated features based on their ecology and impact pathways. The screening takes into account potential connectivity between the Proposed Development and each of the qualifying interests. NatureScot advice has been followed, including guidance on disturbance distances and connectivity distances[12]. Further detail on the approach used to identify which European Sites and features of European Sites could be affected is set out in **Section 5**.

3.4 Consultation

3.4.1 A summary of the consultation with relevant stakeholders and data gathering undertaken as part of the wider on the project, together with how they have been addressed within this HRA Report, is provided in **Table 3.1** below.

Table 3-1 Summary of consultation undertaken

Consultee	Date	Description	Comment
NatureScot	April 2023	Scoping/information request	Information on European site location and designated features obtained from NatureScot Site Link
	April 2023	Consultation on baseline data and proposed methodology	Consultation on baseline survey approach undertaken, the results of which will inform the HRA.
Highland Raptor Study Group (HRSG)	July 2023	Scoping/information request	Breeding records from 2022 and 2021 along the draft routes were obtained. Records of eagles within 6 km and

[12] SNH (2016) Assessing Connectivity with Special Protection Areas (SPAs) Guidance. Version 3 - June 2016.

Consultee	Date	Description	Comment
			other schedule 1 or scarce raptors within 2 km were obtained.
Royal Society for the Protection of Birds (RSPB)	January 2023	Scoping/information request	RSPB bird record data along the draft routes was obtained.
	April 2023	Consultation on baseline data and proposed methodology	Consultation on baseline survey approach undertaken, the results of which will inform the HRA.

4 ENVIRONMENTAL BASELINE

4.1.1 The ecological baseline has been informed by a range of published and publicly available data including the following:

- NatureScot SiteLink [13] - data on designated sites and notable species in Scotland;
- NatureScot Scottish Biodiversity List (SBL) [14] - species which are important for Scotland's Biodiversity;
- Scotland's Environment Web Map [15] - an interactive map which shows biodiversity areas across Scotland;
- National Biodiversity Network (NBN) Atlas [16] - a national interactive map that shows biodiversity areas
- Joint Nature Conservation Committee (JNCC) [17]; - data on European Sites; and
- Data requests from RSPB and Highland Raptor Study Group.

4.1.2 Based on the data collected from consultation and desk-based study, the following surveys are being undertaken to inform the Proposed Development's HRA and Environmental Impact Assessment (EIA):

- Vantage Point (VP) surveys, breeding bird surveys, raptor breeding surveys, diver breeding surveys, and woodland grouse surveys across the Proposed Development during 2023 and 2024;
- Protected species surveys; and
- UKHab Habitat Survey, and National Vegetation Classification (NVC) survey of habitats with the potential to support GWDTE [18].

4.1.3 A summary of the baseline environment is presented in the Scoping Report [19] for the Proposed Development.

[13] NatureScot SiteLink. Available at https://www.nature.scot/information-hub/snhi-data-services
[14] NatureScot Scottish Biodiversity List. Available at https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy/scottish-biodiversity-list
[15] Scotland's Environment Web Map. Available at https://map.environment.gov.scot/sewebmap/
[16] National Biodiversity Network Atlas. Available at https://nbnatlas.org/
[17] JNCC https://hub.jncc.gov.uk/assets/a3d9da1e-dedc-4539-a574-84287636c898
[18] In accordance with respective JNCC survey guidance.
[19] https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00006008

5 SCREENING OF EUROPEAN SITES AND FEATURES

5.1 Approach to Initial Screening

5.1.1 This stage is essentially a site-identification/selection process which identifies all those designated sites and the relevant features which are at risk of Likely Significant Effects (LSE), should those features be sensitive to the relevant effects.

5.1.2 The criteria used in this first stage of selection takes account of the location of the European sites (including Ramsar sites) in relation to the Proposed Development, the Area of Influence (AoI) of potential impacts associated with the Proposed Development and the ecology and distribution of qualifying features. These criteria are described in **Table 5.1**.

Table 5.1 Criteria Used for Initial Screening of Relevant European Sites

Criteria Used for Screening of Relevant European Sites	
1	European or Ramsar site with physical overlap with the Proposed Development location.
2	European or Ramsar site with adjoining 'functionally linked habitat' with physical overlap with the Proposed Development.
3	European or Ramsar site with a qualifying feature located within the potential AoI associated with the Proposed Development; the area of influence is considered to be up to 1 km from the Proposed Development[20].
4	European or Ramsar site with qualifying mobile species whose range (e.g., foraging, migratory, overwintering, breeding or natural habitat range) may interact with potential effects from the Proposed Development. Based on NatureScot guidance, a maximum range of 20 km has been used based on core foraging distances for greylag and pink footed geese[21].

5.1.3 Details of European protected sites initially screened in under one or more of the above criteria are provided in **Table 5.2**. The qualifying features for each site are detailed, using publicly available information obtained from the Magic [22], SiteLink [23] and JNCC [24] websites.

5.1.4 The most recent SAC, SPA and Ramsar citations available on NatureScot SiteLink have been used to inform the HRA. Connectivity with SPAs has been informed by NatureScot Guidance [25].

5.1.5 **Appendix A** illustrates European and Ramsar designated sites for nature conservation within a 20 km radius of the Proposed Development.

[20] 1 km AoI based on maximum potential disturbance distance for sensitive bird species from NatureScot Guidance (Goodship, N.M. and Furness, R.W. (MacArthur Green) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.) as well as the potential impact area for hydrological effects from the Proposed Development.

[21] NaureScot (2016). Assessing Connectivity with Special Protection Areas (SPAs)

[22] The MAGIC website provides geographic information about the natural environment from across government.

[23] NatureScot: https://sitelink.nature.scot/home

[24] Joint Nature Conservation Committee: http://jncc.defra.gov.uk/page-4

[25] Scottish Natural Heritage (2016) Assessing connectivity with Special Protection Areas (SPAs) guidance.

Table 5.2 Initial Screening of Relevant European Sites

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
Special Protection Area (SPA) within 20 km				
Achanalt Marshes SPA	209	18.3 km	**Annex I species:** breeding wood sandpiper (*Tringa glareola).*	Screened out, due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Ben Wyvis SPA	2,178	3.2 km	**Annex I species:** breeding dotterel (*Charadrius morinellus*).	Screened in.
Caithness and Sutherland Peatlands SPA	143,571	Within Route Corridor	**Annex I species:** breeding red-throated diver *(Gavia stellata*), black-throated diver (*Gavia arctica*), hen harrier (*Circus cyaneus*), golden eagle (*Aqulia chrysaetos*), merlin (*Falco columbarius*), golden plover (*Pluvialis apricaria*), wood sandpiper, dunlin (*Calidris alpina*) and short-eared owl (*Asio flammeus*). **Regularly occurring migratory species:** breeding common scoter (*Melanitta nigra*), greenshank (*Tringa nebularia*) and wigeon (*Anas penelope*).	Screened in.
Caithness Lochs SPA	1,379	2.9 km	**Annex I species:** non-breeding populations of whooper swan (*Cygnus cygnus*) and Greenland white-fronted goose (*Anser albifrons flavirostris*). **Regularly occurring migratory species:** non-breeding greylag goose (Anser anser).	Screened in.
Cromarty Firth SPA	3,248	4.7 km	**Annex I species:** breeding osprey (*Pandion haliaetus*) and common tern (*Sterna hirundo*), and wintering whooper swan and bar-tailed godwit (*Limosa lapponica*). **Regularly migratory species:** non-breeding greylag goose. **Regularly supporting an assemblage of over 20,000 waterfowl** including redshank (*Tringa totanus)*, knot (*Calidris canutus*), red-breasted merganser (*Mergus serrator*), scaup (*Aythya marila*), pintail (*Anas acuta*), wigeon, greylag goose, bar-tailed godwit, whooper swan, dunlin and oystercatcher (*Haematopus ostralegus*).	Screened in.
Dornoch Firth and	6,513	Adjacent	**Annex I species:** breeding osprey and wintering bar-tailed godwit. **Regularly occurring migratory species:** non-breeding greylag goose and wigeon.	Screened in.

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
Loch Fleet SPA			**Regularly supporting an assemblage of over 20,000 waterfowl** including curlew (*Numenius arquata*), teal (*Anas crecca*), scaup, redshank, wigeon, greylag goose, bar-tailed godwit, dunlin and oystercatcher.	
East Caithness Cliffs SPA	11,696	0.2 km	**Annex I species:** breeding peregrine (*Falco peregrinus*). **Regularly occurring migratory species:** breeding guillemot (*Uria aalge*), razorbill (*Alca torda*), herring gull (*Larus argentatus*), black-legged kittiwake (*Rissa tridactyla*), European shag (*Phalacrocorax aristotelis*). **Regularly supporting an assemblage of over 20,000 seabirds** including breeding great black-backed gull (*Larus fuscus*), cormorant (*Phalacrocorax carbo*), Northern fulmar (*Fulmarus glacialis*), guillemot, razorbill, herring gull, kittiwake and European shag.	Screened in.
Glen Affric to Strathconon SPA	50,419	5.1 km	**Annex I species:** breeding golden eagle.	Screened in.
Inner Moray Firth SPA	2,290	4.4 km	**Annex I species:** breeding common tern and osprey and wintering bar-tailed godwit. **Regularly occurring migratory species:** non-breeding greylag goose, red-breasted merganser and redshank. **Regularly supporting an assemblage of over 20,000 waterfowl** including: greylag goose, wigeon, teal, goldeneye (*Bucephala clangula*), scaup, red-breasted merganser, goosander (*Mergus merganser*), oystercatcher, curlew, bar-tailed godwit, redshank and cormorant.	Screened in.
Lairg and Strath Brora Lochs SPA	287	7.6 km	**Annex I species:** breeding black-throated diver.	Screened in.
Loch Ashie SPA	163	16.4 km	**Annex I species:** passage Slavonian grebe (*Podiceps auritus*).	Screened out, due to relative distance from Proposed Development and lack of connectivity with qualifying features.

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
Loch Ruthven SPA	201	19.1 km	**Annex I species:** breeding Slavonian grebe.	Screened out, due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Morangie Forest SPA	3,511	7.8 km	**Annex I species:** breeding capercaillie (*Tetrao urogallus*).	Screened in.
Moray Firth SPA	176,218	0.2 km	**Annex I species:** non-breeding great northern diver (*Gavia immer*), red-throated diver and Slavonian grebe. **Regularly occurring migratory species:** non-breeding scaup, common eider (*Somateria mollissima*), long-tailed duck (*Clangula hyemalis*), common scoter, velvet scoter (*Melanitta fusca*), goldeneye, red-breasted merganser and European shag (also breeding).	Screened in.
North Caithness Cliffs SPA	14,629	12.8 km	**Annex I species:** breeding peregrine. **Regularly occurring migratory species:** breeding common guillemot. **Regularly supporting an assemblage of over 20,000 seabirds** including: northern fulmar, black-legged kittiwake, common guillemot, razorbill and Atlantic puffin (*Fratercula arctica*).	Screened in.
North Inverness Lochs SPA	123	9.4 km	**Annex I species:** breeding Slavonian grebe.	Screened in.
Novar SPA	1,055	1.9 km	**Annex I species:** breeding capercaillie.	Screened in.
Strath Carnaig and Strath Fleet Moors SPA	14,701	Within Route Corridor	**Annex I species:** breeding hen harrier.	Screened in.
Special Areas of Conservation (SAC) within 10 km				

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
Amat Woods SAC	235	8.2 km	**Annex I habitat:** Caledonian pinewoods.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Ben Wyvis SAC	5,387	2.0 km	**Annex I habitats:** Alpine and subalpine heaths, blanket bog, dry heath, tall herb communities, clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, montane acid grasslands, plants in crevices in acid rocks, and acidic scree.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Berriedale and Langwell Waters SAC	59	Within Route Corridor	**Annex II species:** Atlantic salmon (*Salmo salar).* The Berriedale and Langwell Waters support small, but high-quality salmon populations.	Screened in.
Caithness and Sutherland Peatlands SAC	145,960.53	Within Route Corridor	The scale and diversity of the Caithness and Sutherland peatlands in northern Scotland make them unique in Europe. They form the largest peat mass in the UK and are three times larger than any other peatland area in either Britain or Ireland. **Annex I habitats:** Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*; natural dystrophic lakes and ponds; and blanket bogs. In addition, three further Annex I habitats are present as a qualifying feature, but not a primary reason for selection of this site. • Northern Atlantic wet heaths with cross-leaved heath (*Erica tetralix*); • Transition mires and quaking bogs; and • Depressions on peat substrates of the *Rhynchosporion*.	Screened in.

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
			Annex II species: marsh saxifrage (*Saxifraga hirculus),* and otter (*Lutra lutra*).	
Conon Islands SAC	121	0.3 km	**Annex I habitats:** Alluvial forests with alder (*Alnus glutinosa)* and ash (*Fraxinus excelsior,* [*Alno-Padion, Alnion incanae, Salicion albae]*).	Screened in.
Dornoch Firth and Morrich More SAC	8,706	2.4 km	**Annex I habitats:** Coastal dune heathland, Atlantic salt meadows, dunes with juniper thickets, lime-deficient dune heathland with crowberry, shifting dunes, estuaries, dune grassland, humid dune slacks, intertidal mudflats and sandflats, reefs, glasswort and other annuals containing sand and mud, subtidal sandbanks, and shifting dunes with marram. **Annex II species:** otter, common seal, (*Phoca vitulina).*	Screened in for otter qualifying feature only.
East Caithness Cliffs SAC		0.2 km	**Annex I habitats:** Vegetated sea cliffs of the Atlantic and Baltic coasts.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of impact pathway for qualifying feature habitats.
Ledmore Wood SAC	93	7.4 km	**Annex I habitats:** Western acidic oak woodland.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Loch Achnacloich SAC	21	8.5 km	**Annex I habitats:** Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
				connectivity with qualifying features.
Loch Ussie SAC	103	2.7 km	**Annex I habitats:** Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea.*	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Loch Watten SAC	428	2.9 km	**Annex I habitats:** Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Monadh Mor SAC	252	9.6 km	**Annex I habitats:** bog woodland and transition mires & quaking bogs.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Moniack Gorge SAC	33	7.6 km	**Annex II species:** Green shield-moss, (*Buxbaumia viridis*). This is one of only three UK sites where green shield-moss has been recorded in recent years.	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
				connectivity with qualifying features.
Moray Firth SAC	151,278	0.2 km	**Annex I habitats:** Subtidal sandbanks **Annex II species:** Bottlenose dolphin (*Tursiops truncates*).	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.
Mound Alderwoods SAC	300	Adjacent	**Annex I habitats:** Alluvial forests with alder, *Alnus glutinosa* and *ash, (Fraxinus* excelsior, [*Alno-Padion*, *Alnion incanae*, *Salicion albae*]).	Screened in.
River Evelix SAC	24	2.3 km	**Annex II species:** Freshwater pearl mussel (*Margaritifera margaritifera).*	Screened in.
River Oykel SAC	954	Within Route Corridor	**Annex II species:** freshwater pearl mussel. The river supports an excellent, high-quality freshwater pearl mussel population. **Annex II species:** Atlantic salmon.	Screened in.
River Thurso SAC	352	0.7 km	**Annex II species:** Atlantic salmon.	Screened in.
Strathglass complex SAC	23,592	5.3 km	**Annex I habitats:** Alpine and subalpine heaths, blanket bog, bog woodland, plants in crevices in base-rich rocks, Caledonian forest, dry heaths, tall herb communities, otter, wet heathland with cross-leaved heath, clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, montane acid grasslands, plants in crevices in acid rocks, acidic scree, mountain willow scrub. **Annex II species:** otter (qualifying feature).	Screened out. Adverse impacts to habitats screened out due to relative distance from Proposed Development and lack of connectivity with qualifying features.

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
Ramsar[26] Sites within 20 km				
Caithness and Sutherland Peatlands Ramsar	145,960.53	Within Route Corridor	**Ramsar Criterion 1:** Wetland habitats including: blanket bog, mire, oligotrophic lochs, dystrophic lochs, lochans and pools and wet heath. **Ramsar Criterion 2:** nationally scare plants *Sphagnum lindbergii* and *S. majus* and bog orchid (*Hammarbya paludosa).* **Ramsar Criterion 2:** nationally rare water beetle (*Oreodytes alpinus)* and freshwater pearl mussel. **Ramsar Criterion 2:** populations of otter. **Ramsar Criterion 2:** populations of freshwater pearl mussel. **Ramsar Criterion 2:** Breeding red-throated diver, black-throated diver, golden plover, wood sandpiper and dunlin. **Ramsar Criterion 4:** Breeding wigeon, common scoter and greenshank.	Screened in.
Caithness Lochs Ramsar	1,379	2.9 km	**Ramsar Criterion 6:** regularly supporting more than 1% of the population of non-breeding whooper swan, Greenland white-fronted goose and greylag goose.	Screened in.
Cromarty Firth Ramsar	3,747	4.7 km	**Ramsar Criterion 1:** Wetland habitats including: mudflats, estuarine alder woodland, open water transition fen and saltmarsh. **Ramsar Criterion 2:** Breeding osprey and common tern and wintering whooper swan. **Ramsar Criterion 4:** regularly supporting important numbers of wintering redshank, curlew, knot, red-breasted merganser, scaup, pintail, wigeon, dunlin and oystercatcher **Ramsar Criterion 5:** an assemblage of over 20,000 birds including wintering redshank, curlew, knot, red-breasted merganser, scaup, pintail, wigeon, dunlin and oystercatcher whooper swan, greylag goose and bar-tailed godwit. **Ramsar Criterion 6:** regularly supporting more than 1% of the population of greylag goose and bar-tailed godwit.	Screened in for bird interests only.

[26] Only RAMSAR species / habitats not already considered under SPA designation criteria are included in this section.

European Site Name	Area of Site (ha)	Approximate Distance from Proposed Development (km)	Qualifying Feature/s of Interest	Screened In/Out of Assessment
Dornoch Firth and Loch Fleet Ramsar	7,837	Adjacent	**Ramsar Criterion 1:** Wetland habitats including: estuarine alder woodland, estuaries, sand dunes **Ramsar Criterion2:** Baltic rush (*Juncus balticus)*, seaside centaury (*Centaurium littorale)*, dwarf eelgrass (*Zostera noltei)* and eelgrass (*Z. marina).* **Ramsar Criterion 2** harbour seal (*Phoca vitula)* and otter. **Ramsar Criterion 2:** Breeding osprey **Ramsar Criterion 4:** regularly supporting important numbers of wintering curlew, teal, scaup and redshank **Ramsar Criterion 5:** an assemblage of over 20,000 birds including wintering curlew, teal, scaup and redshank, dunlin, oystercatcher, greylag goose, wigeon and bar-tailed godwit **Ramsar Criterion 6:** regularly supporting more than 1% of the population of greylag goose, wigeon, bar-tailed godwit.	Screened in for habitats, plants, otter and bird qualifying features.
Inner Moray Firth Ramsar	2,339	4.4 km	**Ramsar Criterion 1:** Wetland habitats including: mudflats, sandflats, saltmarsh, sand dunes and shingle bars. **Ramsar Criterion 2:** Breeding osprey and common tern. **Ramsar Criterion 4:** regularly supporting important numbers of wintering scaup, curlew, goosander, goldeneye, teal, wigeon and cormorant. **Ramsar Criterion 5:** an assemblage of over 20,000 birds including the species listed above and wintering oystercatcher, bar-tailed godwit, greylag goose, red-breasted merganser and redshank. **Ramsar Criterion 6:** regularly supporting more than 1% of the population of bar-tailed godwit, greylag goose, red-breasted merganser and redshank	Screened in for bird interests only.
Loch Ruthven Ramsar	201	19.1 km	**Ramsar Criterion 2:** Breeding Slavonian grebe, coralroot orchid (*Corallorhiza trifida*) and bog orchid (*Hammarbya paludosa*).	Screened out, due to relative distance from Proposed Development and lack of connectivity with qualifying features.

5.2 Effects Considered in Assessment

5.2.1 The potential effects upon European site(s) as a result of the Proposed Development that have been considered within this HRA report are listed in **Section 6**.

5.2.2 Likely significant effects (LSEs) on supporting ornithology features / habitats within either a SPA, or Ramsar site are considered to comprise of:

- Indirect loss of birds due to disturbance and displacement;
- Direct loss due to habitat disturbance / displacement;
- Direct loss from mortality due to collision with infrastructure; and
- Potential barrier effects as a result of the presence of infrastructure.

5.2.3 LSEs on supporting features / habitats for SAC sites are deemed to comprise of:

- Habitat loss / degradation; and
- Disturbance / displacement to Annex II qualifying features.

5.2.4 All other impacts are determined to have no likely significant effects due to the lack of connectivity and/or distance such that there is no pathway of effect between the European/Ramsar sites and the Proposed Development.

6 DETERMINATION OF LIKELY SIGNIFICANT EFFECTS

6.1 Introduction

6.1.1 The European sites initially screened in for assessment of likely significant effect (LSE) are documented in **Table 5.2**. These sites were selected for screening using the criteria outlined in **Table 5.1**. There is therefore a need to consider the potential for LSE on these sites in relation to the Proposed Development.

6.1.2 In addition, in **Section 5.2**, the likely effects that may result during construction, operation and maintenance of the Proposed Development (and are relevant to the receptors being considered here) are identified to enable assessment. This section combines that information for the Proposed Development alone and presents the assessment of LSE, thus providing the necessary information for Stage 1 of the HRA process.

6.1.3 The assessment of LSE is based on the Proposed Development's current understanding of the baseline environment and the scope and nature of the proposed project activities, together with the relevant information available for the designated sites. Consultee and advisor responses to this document, and refinements to the Proposed Development design may change the conclusion of this assessment.

6.2 Assessment of Likely Significant Effects (LSE)

6.2.1 The assessment and conclusions, with regards to LSEs on the relevant European/Ramsar sites (**Table 5.2**) and the relevant features identified, has been carried out taking account of the AoI of potential impacts, location of the European/Ramsar sites under consideration and (where known) the distribution of qualifying features in relation to the Proposed Development. The information is presented below in **Table 6.1**.

Table 6-1 Assessment of Potential for LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
SPA and Ramsar site (bird features)				
Ben Wyvis SPA	Dotterel, breeding	Indirect loss of bird habitats due to disturbance and displacement.	An average of 2.4% of UK population / 20 pairs, (1987-199327) breed within SPA; The Proposed Development does not physically overlap the SPA and is located approximately 3.2 km from the nearest point; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Breeding habitat is not predicted to be disturbed or displaced as a result of construction, operation and/or maintenance of the OHL, therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no dotterel flights observed, therefore LSE has been excluded.	No LSE
	Dotterel, spring staging	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development does not physically overlap the SPA and is located approximately 3.2 km from the nearest point; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Staging habitat is not expected to be disturbed or displaced as a result of construction, operation, and/or maintenance of the OHL,therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no dotterel flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE

[27] Where available, the year/s when a species was surveyed to produce mean population estimates is presented in this section.

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
Caithness and Sutherland Peatlands SPA and Ramsar	Red-throated diver, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA; The SPA holds 3.5% / 46 pairs (2006) of the GB breeding population; NatureScot (2022) [28] advise that depending on the level of habituation to disturbance, a buffer zone of 500-750 m is suggested to protect breeding red-throated diver; Results of baseline surveys along with the HRSG and RSPB data did not indicate any red-throated diver territories within both disturbances areas mentioned above. Therefore, LSE can be excluded; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development.	No LSE
		Direct loss of habitat within the SPA due to disturbance and displacement.	Results of breeding bird surveys did not record any red-throated diver territories within SPA or potential disturbance distance from the Proposed Development. The alignment of the Proposed Development does not cross any suitable breeding diver waterbodies within the SPA and will not result in the direct loss of any breeding diver habitat. Therefore LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Red-throated divers forage typically up to 8 km from the nest location (Mitchell, C, 2012)[(29)]; During 12 months of baseline surveys three flights of red-throated diver were recorded crossing the alignment within the foraging distance of the SPA, as a result LSE cannot be excluded.	LSE
	Black-throated diver, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA; The SPA holds 15% / 26 pairs (1994) of the GB breeding population; NatureScot (2022) advise that depending on the level of habituation to disturbance, a buffer zone of 500-750 m is suggested to protect breeding black-throated diver. Results of baseline surveys did not record any breeding black-throated divers within or close to the SPA. RSPB data did not indicate any recent black-throated	No LSE

[28] Goodship, N.M. and Furness, R.W. 2022. Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. A report from MacArthur Green to NatureScot.

[29] Mitchell, C. 2012. Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. Wildfowl & Wetlands Trust / Scottish Natural Heritage Report, Slimbridge.

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			diver territories within potential disturbance distance from the Proposed Development. Therefore LSE can be excluded.	
		Direct loss of habitat within the SPA due to disturbance and displacement.	Results of baseline surveys along with the RSPB data did not record any black-throated diver territories within potential disturbance distances from the Proposed Development. The closest historic black-throated diver breeding lochan is approximately 5 km west of the proposed alignment. The alignment of the Proposed Development does not cross any suitable breeding diver waterbodies within the SPA and will not result in the direct loss of any breeding diver habitat Therefore, LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no black-throated diver flights crossing the proposed alignment observed, therefore LSE can be excluded.	No LSE
	Golden plover, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA. Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds 5 % / 1,094 pairs (1993-1994) of the GB breeding population; NatureScot (2022) advise a buffer zone of 200-500 m to protect nesting golden plover during the breeding season; The results of the breeding bird surveys indicate one possible and one probable breeding territory within 900 and 1000 m of the proposed alignment and within the SPA, respectively. No golden plover territories were recorded within potential disturbance distance from the Proposed Development e.g. Golden plover nesting elsewhere in the SPA may be displaced from foraging habitat along the proposed alignment, therefore LSE cannot be excluded.	LSE
		Direct loss of habitat within the SPA due to disturbance and displacement.	Breeding bird surveys recorded one possible and one probable breeding territory within 900 and 1000 m of the proposed alignment respectively, with both located within the SPA. No golden plover territories were recorded within potential disturbance distance. However suitable habitat for breeding golden plover is	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			present along the proposed alignment, and golden plover may move nest location between years. Therefore, LSE cannot be ruled out.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Golden plovers forage typically up to 9 km from the nest location with a maximum distance of 11km (Mitchell, C, 2012.)[30]; During 12 months of baseline surveys there were no flights during breeding season of golden plover crossing the alignment within the foraging distance of the SPA, as a result LSE can be excluded.	No LSE
	Dunlin, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA; The SPA holds 5% / 1,860 pairs (1993-1994) of the GB breeding population; NatureScot (2022) advise a buffer zone of 100-200 m is suggested to protect nesting dunlin, and a SPA connectivity distance of a core foraging range of 500m and a maximum of 3km; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The results of the breeding bird surveys did not record dunlin territories within the SPA boundary. However, three possible territories were recorded outside of but within the foraging area distance from the SPA and within potential disturbance distance from the proposed alignment that could potentially result in losing foraging habitat to the species. Therefore, LSE cannot be excluded.	LSE
		Direct loss of habitat within the SPA due to disturbance and displacement.	Breeding bird surveys recorded three possible breeding territories outside of the SPA boundary. The closest was approximately 700 m from the proposed alignment. However suitable habitat for breeding dunlin is present along the proposed alignment and dunlin may move breeding locations between years. Therefore direct loss of dunlin habitat during construction may occur as a result of the Proposed Development, and LSE cannot be ruled out.	LSE

[30] Mitchell, C. 2012. Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. Wildfowl & Wetlands Trust / Scottish Natural Heritage Report, Slimbridge.

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no dunlin flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Wood sandpiper, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA; The SPA holds 40% / 5 pairs of the GB breeding population; NatureScot (2022) advise a precautionary buffer zone of 150-300 m; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Results of baseline surveys along with RSPB data did not record wood sandpiper territories within 500m of the proposed alignment within or outwith the SPA. The closest historic desk-based record of wood sandpiper is approximately 8 km west of the proposed alignment. Therefore, LSE can be excluded.	No LSE
		Direct loss of habitat within the SPA due to disturbance and displacement.	Results of baseline surveys along with RSPB data did not record wood sandpiper territories within 500 m of the proposed alignment within the SPA. The closest historic desk-based record of wood sandpiper is approximately 8 km west of the proposed alignment. Therefore, LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no wood sandpiper flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Hen harrier, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds a mean of 40% / 16 pairs (1993–1997) of the GB breeding population; NatureScot (2022) advise that hen harriers are most likely to be disturbed at nest sites early in the breeding season as well as at communal roosting areas and	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			potentially foraging grounds during the nonbreeding season. Depending on the level of habituation to disturbance, a buffer zone of 300-750 m is suggested to protect both breeding and nonbreeding hen harriers from disturbance, but habituation to disturbance influences the size of the buffer required; Baseline surveys did not record any hen harrier territories along the proposed alignment within the SPA or potential connectivity distance of 2 km. However data obtained from RSPB and HRSG indicate historical breeding records in this area. As the proposed alignment passes through the SPA, there is the potential for indirect loss of habitat used by SPA birds to forage during the breeding season. As a result, in the absence of mitigation, there is the potential for LSE.	
		Direct loss of habitat within the SPA due to disturbance and displacement.	The proposed alignment passes through the SPA. Baseline surveys did not record any hen harrier territories along the proposed alignment within the SPA or potential connectivity distance of 2 km. However data obtained from RSPB and HRSG indicate historical breeding records in this area. There is suitable breeding habitat for hen harrier along the proposed alignment within connectivity distance to the SPA, and hen harriers may move nest site between years. As a result, in the absence of mitigation, LSE from direct loss of hen harrier breeding habitat cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Hen harriers have a foraging range from between a core foraging range of up to 2 km to a maximum range of 10 km (Mitchell, 2012); During 12 months of baseline surveys 20 flights of hen harrier were recorded crossing the alignment within the foraging distance of the SPA, as a result LSE cannot be excluded.	LSE
	Golden eagle, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA. Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds a mean of 1%/ 5 pairs (1992) of the GB breeding population; NatureScot advise a buffer zone of 750-1,000 m to protect nesting golden eagles from disturbance. Connectivity distance guidance advises a core range of up to 6 km for golden eagle territories;	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Baseline surveys did not record any golden eagle territories within 6 km of the alignment passing through the SPA. The desk-based study review of data from HRASG and RSPB identified records of breeding golden eagle 5.5 km from the proposed alignment and within 600 m of the SPA which may form part of the SPA population. As a result, indirect impacts from the loss of foraging habitat and potential LSE cannot be excluded.	
		Direct loss of habitat within the SPA due to disturbance and displacement.	As the proposed alignment passes through the SPA, there is the potential for direct loss of golden eagle breeding habitat. However, baseline surveys did not record any breeding golden eagle territories within 6 km of the SPA. The closest nest locations identified during the desk-based review of data from HRSG and RSPB were approximately 5.5 km from the proposed alignment. There are no suitable breeding crags along the proposed alignment. LSE from direct loss of golden eagle breeding habitat has therefore been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Golden eagles are expected to fly across project infrastructure during the breeding season, and have a foraging range from between a core foraging range of up to 6 km to a maximum range of 9 km (Mitchell, 2012); During 12 months of baseline surveys 12 flights of golden eagle were recorded crossing the alignment within the foraging distance of the SPA, as a result LSE cannot be excluded.	LSE
	Short-eared owl, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA. Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds 2% / 30 pairs of the GB breeding population; NatureScot (2022) advise a buffer zone of 300-500 m for breeding short-eared owls, and a core range of 2 km; Baseline surveys did not record short eared owl territories within 2 km of the proposed alignment. The closest territory identified from the desk-based review of RSPB and HRSG data was approximately 4 km west of the proposed alignment, within the SPA. As the proposed alignment passes through the SPA, there is the potential for indirect loss of habitat used by SPA birds to forage during the	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			breeding season. As a result, in the absence of mitigation, there is the potential for LSE.	
		Direct loss of habitat within the SPA due to disturbance and displacement.	The proposed alignment passes through the SPA. Baseline surveys did not record any short-eared owl territories along the proposed alignment within the SPA or potential connectivity distance of 2 km. However data obtained from RSPB and HRSG indicate historical breeding records approximately 4 km from the alignment. There is suitable breeding habitat for short-eared owl along the proposed alignment, and short-eared owls may move nest site between years. As a result, in the absence of mitigation, LSE from direct loss of short-eared owl breeding habitat cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there was a single short-eared owl flight crossing the proposed alignment within the published foraging range distance of the SPA, therefore LSE cannot be excluded.	LSE
	Merlin, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA. Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds 4% / 54 pairs of the GB breeding population (1993, 1994); NatureScot (2022) advise a buffer zone of 300-500 m to protect nesting merlin from disturbance, and foraging range of 5 km; Results of baseline surveys did not record any breeding merlin within 2 km of the SPA. A desk-based review of HRSG and RSPB data did not identify merlin territories within 5 km of the Proposed Development, although merlin occurs on the RSPB Forsinard Flows reserve, located approximately 700 m from the Proposed Development. Suitable foraging habitat is present and may be used by breeding SPA merlin. As a result, in the absence of mitigation, LSE cannot be ruled out.	LSE
		Direct loss of habitat within the SPA due to disturbance and displacement.	The proposed alignment passes through the SPA. Baseline surveys did not record any merlin territories along the proposed alignment within the SPA or potential connectivity distance of 5km. Data obtained from RSPB and HRSG did not identify historical breeding records within 5 km of the alignment. However there is suitable	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			breeding habitat for merlin along the proposed alignment, and merlin may move nest site between years. As a result, in the absence of mitigation, LSE from direct loss of merlin breeding habitat cannot be excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there was a single merlin flight crossing the proposed alignment within the published foraging range of the SPA, therefore LSE cannot be excluded.	LSE
	Wigeon, migratory, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA. Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds 10.8% / 43 pairs of the GB breeding population (1993-1994); NatureScot (2022) advise a buffer zone of 100-200 m to protect nesting wigeon during the breeding season; Baseline surveys did not record any breeding wigeon within 500m of the proposed alignment. The desk-based review with RSPB data identified wigeon breeding territories within approximately 1 km of the proposed alignment. However there are potentially suitable bog pools which wigeon may breed on within 200m of the proposed alignment. In the absence of mitigation, LSE cannot be excluded.	LSE
		Direct loss of habitat within the SPA due to disturbance and displacement.	Results of breeding bird surveys did not record any wigeon territories within the SPA or the potential disturbance distance from the Proposed Development. The alignment of the Proposed Development does not cross any suitable breeding wigeon waterbodies within the SPA and will not result in the direct loss of any breeding wigeon habitat. Therefore, LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys there were no wigeon flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Common scoter, migratory, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA. Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds 40.4% / 21 pairs of the GB breeding population (2007); NatureScot (2022) advise a buffer zone of 300-500 m to protect nesting common scoter during the breeding season; Baseline surveys did not record any breeding common scoter within 500 m of the Proposed Alignment. The desk-based review did not identify any common scoter breeding territories within 2 km of the proposed alignment. Baseline surveys did record pre-and post breeding flocks on Loch Toftingal and on Loch Stemster which could be disturbed as a result of construction of the Proposed Development. As a result, there is the potential for LSE to occur on breeding common scoter from indirect loss of habitat from disturbance to flocks of birds on route to and from breeding territories.	LSE
		Direct loss of habitat within the SPA due to disturbance and displacement.	Results of breeding bird surveys did not record any common scoter territories within the SPA or the potential disturbance distance from the Proposed Development. The alignment of the Proposed Development does not cross any suitable breeding common scoter waterbodies within the SPA and will not result in the direct loss of any breeding common scoter habitat. Therefore, LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no common scoter flights crossing the proposed alignment, therefore LSE has been excluded. However common scoter are known to fly at night and may cross the Proposed Development on route to breeding territories or to pre and post breeding staging lochs. As a result LSE cannot be excluded.	LSE
	Greenshank, migratory, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA. Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The SPA holds 59.4% / 653 pairs of the GB breeding population (2009);	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			NatureScot (2022) advise a buffer zone of 300-500 m to protect nesting greenshanks, and a core range of 2 km; Baseline surveys recorded a possible greenshank territory within 150m of the SPA and approximately 700 m from the proposed alignment. The desk-based review of RSPB data identified historical greenshank territories within 2 km of the proposed alignment. It is possible that Proposed Development could result in indirect loss of habitat to the SPA breeding greenshank population, therefore LSE cannot be excluded.	
		Direct loss of habitat within the SPA due to disturbance and displacement.	Baseline surveys did not record any greenshank territories within the SPA but recorded 1 possible territory within the species 2km connectivity distance of the SPA. Greenshank may move nest sites between years and could breed closer to the proposed alignment. In the absence of mitigation, LSE cannot be ruled out.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no greenshank flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
Caithness Lochs SPA and Ramsar	Whooper swan, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is located approximately 2.9 km from the nearest point of the SPA, Loch Watten; The SPA holds an average of 240 (1993/94-1997/98), overwintering birds, equivalent to 4% of the GB wintering population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; NatureScot (2016) suggest the core feeding / foraging range for the species is less than 5 km, though applying a precautionary principle, the upper limit of 5 km has been employed in determining the potential for LSE. As Loch Watten is situated within this distance, the potential for disturbance and displacement is assessed to exist. Therefore LSE cannot be excluded.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Winter foraging whooper swan will forage up to 5 km from the night roost (Mitchell, 2012); During the 12 months of baseline surveys, there was a single whooper swan crossing the proposed alignment within the foraging range observed, therefore LSE cannot be excluded.	LSE
	Greenland white-fronted goose, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is located approximately 2.9 km from the nearest location, Loch Watten; The SPA holds an average of 440 (1993/94-1997/98) overwintering birds, equivalent to 3% of the GB wintering population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; NatureScot (2016) suggest the core feeding / foraging range for the species is 5-8 km, and applying a precautionary principle, the upper limit of 8 km has been employed in determining the potential for LSE. As Loch Watten is situated within this distance, the potential for disturbance and displacement is assessed to exist. Therefore LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Winter foraging Greenland white-fronted geese will forage 5-8 km from the night roost (Mitchell, 2012); During the 12 months of baseline surveys, there were no Greenland white-fronted goose flights crossing the proposed alignment within the published foraging range of the SPA, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Greylag goose, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is located approximately 2.9 km from the nearest point, Loch Watten; The SPA holds an average of 7,190 (1993/94-1997/98) overwintering birds, equivalent to 7% of the GB wintering population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; NatureScot (2016) suggest the core feeding / foraging range for the species is 15-20 km, and applying a precautionary principle, the upper distance of 20 km has been employed in determining the potential for LSE. As Loch Watten is situated within this distance, the potential for disturbance and displacement is assessed to exist. Therefore LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Winter foraging greylag geese will forage 15-20 km from night roost (Mitchell, 2012); There were 6 confirmed records of breeding, 1 observation of possible breeding birds and 8 observations of non-breeding birds during the 2023 breeding season surveys, and 50 flights recorded during 2023 flight activity surveys; During the 12 months of baseline surveys, there were 25 greylag goose flights crossing the proposed alignment within the published foraging range of the SPA. As a result LSE cannot be excluded.	LSE
Cromarty Firth SPA and Ramsar	Common tern, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.7 km from the SPA at its closest point; The SPA holds a mean of 2% / 294 pairs of the GB breeding population (1989-1993); NatureScot (2022) advise a minimum buffer zone of 200 m to protect Arctic tern colonies from pedestrian disturbance, although a larger buffer zone may be required if terns are not habituated to disturbance or if there is likely to be aerial disturbance above the colony; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, the closest observed flight crossing the proposed alignment was 46 km from the SPA, therefore LSE has been excluded.	No LSE
	Osprey, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.7 km from the SPA at its closest point; A mean of 12.5 % / 25 pairs of the GB breeding population (2008-2012) forage within the SPA and 1% / 1 pair breed within the SPA; NatureScot (2022) advise a buffer zone of 350-750 m to protect ospreys during the breeding season from pedestrian disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Osprey may breed outside of the SPA and use estuarine waterbodies within the SPA to forage. There may be suitable breeding habitat within 10 km of the SPA and the Proposed Development lies within this buffer zone. Therefore LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Ospreys are expected to fly across project infrastructure during the breeding season, have a core foraging range up to 10 km to a maximum recorded foraging range of 28 km (Mitchell, 2012); During the 12 months of baseline surveys, a single osprey flight was recorded crossing the proposed alignment within the core foraging range, therefore LSE cannot be excluded.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Whooper swan, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.7 km from the SPA at its closest point; A mean of 1% / 64 birds of the GB wintering population (1992-1997) forage within the SPA; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; NatureScot (2016) suggest the core feeding / foraging range for the species is less than 5 km, though applying a precautionary principle, the upper distance of 5 km has been employed in determining the potential for LSE. As the SPA is situated within this distance, the potential for disturbance and displacement is assessed to exist and LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Winter foraging whooper swan will forage up to 5 km from night roost (Mitchell, 2012); During the 12 months of baseline surveys, no whooper swan flights were recorded crossing the proposed alignment within the published foraging range from the SPA, therefore LSE has been excluded.	No LSE
	Greylag goose, wintering, migratory	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 1,782 (1993/94-1997/98),overwintering birds, equivalent to 2% of the GB wintering population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; NatureScot (2016) suggest the core feeding / foraging range for the species is 15-20 km, though applying a precautionary principle, the upper distance of 20 km has been employed in determining the potential for LSE. As the SPA boundary is situated within this distance, the potential for disturbance and displacement is assessed to exist and LSE cannot be excluded.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Winter foraging greylag geese will forage 15-20 km from the night roost (Mitchell, 2012); During the 12 months of baseline surveys, there were 18 greylag goose flights crossing the proposed alignment within the published foraging range of the SPA. Therefore LSE cannot be excluded.	LSE
	Bar-tailed godwit, migratory	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds an average of 1,355 overwintering birds, equivalent to 3% of the GB wintering population; NatureScot (2022) advise a minimum buffer zone of 200-300 m to protect foraging and roosting bar-tailed godwit during the nonbreeding season from pedestrian disturbance. SPA connectivity distance guidance has not been published for bar-tailed godwit, though given the distance of the Proposed Development from the SPA any connectivity is deemed to be extremely unlikely; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated. Therefore LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Results of 12 months baseline surveys did not record any flights of bar-tailed godwits across the proposed alignment. Therefore LSE can be excluded.	No LSE
	Redshank, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 1% / 1,149 individuals of the GB wintering population (1992/93 - 1996/97); NatureScot (2022) advise a buffer zone of 200-300 m to protect foraging and roosting birds during the non-breeding season from pedestrian disturbance;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			It is considered likely that most activity will comprise commuting from onshore roosts areas to feeding locations along the inter-tidal zone and, as such, will not be influenced by the Proposed Development; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Results of 12 months baseline surveys did not record any flights of redshank across the proposed alignment, therefore LSE can be excluded.	No LSE
	Curlew, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 1,313 overwintering birds, equivalent to 1% of the GB wintering population (1992/93 – 1996/97); NatureScot (2022) advise a minimum buffer zone of 200-650 m to protect foraging and roosting Eurasian curlew during the non-breeding season from pedestrian disturbance; It is considered likely that most activity will comprise commuting from onshore roosts areas to feeding locations along the inter-tidal zone and, as such, will not be influenced by the Proposed Development; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Results of 12 months baseline surveys did not record any flights of curlew crossing the proposed alignment within 2 km of the SPA during the non-breeding season. Therefore LSE can be excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Knot, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 4,312 overwintering birds, equivalent to 1% of the GB wintering population (1992/93 – 1996/97); NatureScot (2022) advise a minimum buffer zone of 100-300 m to protect foraging and roosting knot during the non-breeding season from pedestrian disturbance; It is considered likely that most activity will comprise commuting from onshore roosts areas to feeding locations along the inter-tidal zone and, as such, will not be influenced by the Proposed Development; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Results of 12 months baseline surveys did not record any flights of knot across the proposed alignment. Therefore LSE can be excluded.	No LSE
	Red-breasted merganser, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 204 (1992/93-1996/97) overwintering birds, equivalent to 2% of the GB population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The nearest red-breasted merganser flight from 12 month baseline surveys was 30 km north of the SPA, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Scaup, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 295 (1992/93-1996/97) overwintering birds, equivalent to 3% of the GB wintering population; NatureScot (2022) advise a buffer zone of 150-450 m to protect roosting and foraging birds during the non-breeding season from pedestrian and boating disturbance; It is considered that the species will be almost exclusively marine during the wintering season; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	NatureScot (2022) advise a buffer zone of 150-450 m to protect roosting and foraging birds during the non-breeding season from pedestrian and boating disturbance; The 12 month of baseline surveys did not record any scaup flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Pintail, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 319 (1992/93-1996/97) overwintering birds, equivalent to 1% of the GB wintering population; NatureScot (2022) advise a buffer zone of 100-200 m is suggested to protect roosting and foraging birds during the non-breeding season from pedestrian and boating disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any pintail flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Wigeon, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 9,204 individuals, equivalent to 3 % of the GB population (1992/3-1996/7) overwintering birds, equivalent to 3% of the GB wintering population; NatureScot (2022) advise a buffer zone of 200-500 m is suggested to protect roosting and foraging birds during the non-breeding season from pedestrian and boating disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any wigeon flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Dunlin, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point; The SPA holds a mean of 3,384 overwintering birds, equivalent to 0.6% of the GB wintering population (1992/93 – 1996/97); NatureScot (2022) advise a minimum buffer zone of 150-300 m to protect foraging and roosting knot during the non-breeding season from pedestrian disturbance; It is considered likely that most activity will comprise commuting from onshore roosts areas to feeding locations along the inter-tidal zone and, as such, will not be influenced by the Proposed Development;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any dunlin flights crossing the proposed alignment within the SPA, with the nearest flight recorded 29 km from the SPA, therefore LSE has been excluded.	No LSE
	Oystercatcher, wintering (assemblage)	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.7 km from the nearest point of the SPA; The SPA holds a mean of 2,702 overwintering birds, equivalent to 0.8% of the GB wintering population (2004/05 – 2009/10); NatureScot (2022) advise a minimum buffer zone of 150-300 m to protect foraging and roosting knot during the non-breeding season from pedestrian disturbance; It is considered likely that most activity will comprise commuting from onshore roosts areas to feeding locations along the inter-tidal zone and, as such, will not be influenced by the Proposed Development; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any oystercatcher flights crossing proposed alignment within the SPA. The closest flight recorded is 14 km from the SPA, therefore LSE has been excluded.	No LSE
Dornoch Firth and Loch Fleet SPA	Osprey, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is adjacent to the nearest point of the SPA; A mean of 6% / 6 territories of the GB breeding population (2008-2012) forage within the SPA and 1% / 1 pair breed within the SPA;	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			NatureScot (2022) advise a buffer zone of 350-750 m to protect ospreys during the breeding season from pedestrian disturbance; as a result, LSE cannot be excluded; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Ospreys have a core foraging range up to 10 km to a maximum recorded foraging range of 28 km (Mitchell, 2012); During the 12 months of baseline surveys, there were 9 osprey flights crossing the proposed alignment within the published core foraging range of the SPA. As a result, LSE cannot be excluded.	LSE
	Greylag goose, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is adjacent to the nearest point of the SPA; The SPA holds a mean of 1,164 (1989-1994) overwintering birds, equivalent to 1% of the GB wintering population; NatureScot (2022) guidance on disturbance distances for greylag geese suggests a disturbance buffer of 200-600 m; therefore LSE cannot be excluded; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Winter foraging greylag geese will forage 15-20 km from the night roost (Mitchell, 2012); During the 12 months of baseline surveys, there were 49 greylag goose flights crossing the proposed alignment within the published foraging range of the SPA. As a result, LSE could not be excluded.	LSE
	Wigeon, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is adjacent to the nearest point of the SPA; The SPA holds a mean of 15,304 (1989-1994) overwintering birds, equivalent to 2% of the GB wintering population; NatureScot (2022) advise a buffer zone of 200-500 m is suggested to protect roosting and foraging birds during the non-breeding season from pedestrian and boating disturbance;	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; However construction activity may result in disturbance to birds using habitats close to the alignment, therefore LSE cannot be excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Published information on connectivity distances related to wigeon foraging during winter is not available; Results of 12 month baseline surveys did not record any wigeon flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Bar-tailed godwit, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is adjacent to the nearest point of the SPA; The SPA holds a mean of 1,184 overwintering birds, equivalent to 1% of the GB wintering population (1989/90 – 1993/94); NatureScot (2022) advise a minimum buffer zone of 200-300 m to protect foraging and roosting bar-tailed godwit during the non-breeding season from pedestrian disturbance; It is considered likely that most activity will comprise commuting from onshore roosts areas to feeding locations along the inter-tidal zone and, as such, will not be influenced by the Proposed Development; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; However construction activity may result in disturbance to birds using habitats close to the alignment. Therefore LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Baseline surveys did not record any flights of bar-tailed godwits across the Proposed Development, so LSE can be excluded.	No LSE
	Curlew, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is adjacent to the nearest point of the SPA; The SPA holds a mean of 1,397 overwintering birds, equivalent to 1% of the GB wintering population (1988/89 – 1993/94);	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			NatureScot (2022) advise a minimum buffer zone of 200-650 m to protect foraging and roosting Eurasian curlew during the non-breeding season from pedestrian disturbance; It is considered likely that most activity will comprise commuting from onshore roosts areas to feeding locations along the inter-tidal zone and, as such, will not be influenced by the Proposed Development; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; However construction activity may result in disturbance to birds using habitats close to the alignment, therefore LSE cannot be excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys recorded five flights of curlew crossing the alignment within the 5 km of the SPA/Ramsar site. Therefore LSE cannot be excluded.	LSE
	Teal, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is adjacent to the nearest point of the SPA; The Ramsar site holds a mean of 1.1% / 2,175 individuals (1998-2003) of the GB wintering population; There is no published SPA connectivity guidance for this species; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; LSE cannot be excluded at this stage.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any teal flights across the proposed alignment within the SPA. The closest teal flight crossing the proposed alignment was 13 km from the SPA, therefore LSE has been excluded.	No LSE
	Scaup, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment route is adjacent to the nearest point of the SPA; The SPA holds a mean of 123 (1988/89-1993/94) overwintering birds, equivalent to 1% of the GB wintering population;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			NatureScot (2022) advise a buffer zone of 150-450 m is suggested to protect roosting and foraging birds during the non-breeding season from pedestrian and boating disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The Proposed Development is approximately 4 km from areas of mudflat and open estuarine water. Therefore LSE on scaup has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month baseline surveys did not record any scaup flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Redshank, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development route is adjacent to the nearest point of the SPA; The Ramsar site holds a mean of 1% / 1,265 individuals of the GB wintering population; NatureScot (2022) advise a buffer zone of 200-300 m is suggested to protect foraging and roosting birds during the non-breeding season from pedestrian disturbance. The distance from the Proposed Development infrastructure (including access tracks) falls within this distance so LSE cannot be excluded; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any redshank flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Dunlin, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment route is adjacent to the nearest point of the SPA; The Ramsar site holds a mean of 4,088 individuals / 1% of the GB wintering population (2005/06 / 2009/10); NatureScot (2022) advise a buffer zone of 150-300 m is suggested to protect foraging and roosting birds during the non-breeding season from pedestrian	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			disturbance. The distance from the Proposed Development infrastructure (including access tracks) falls within this distance so LSE cannot be excluded; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any dunlin flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Oystercatcher, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment route is adjacent to the nearest point of the SPA; The Ramsar site holds a mean of 2,459 individuals / 0.8 % of the GB wintering population (2004/05 / 2009/10); NatureScot (2022) advise a buffer zone of 150-300 m is suggested to protect foraging and roosting birds during the non-breeding season from pedestrian disturbance. The distance from the Proposed Development infrastructure (including access tracks) falls within this buffer zone so LSE cannot be excluded; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any oystercatcher flights crossing the proposed alignment in non-breeding season within the 5 km range, therefore LSE has been excluded.	No LSE
East Caithness Cliffs SPA	Kittiwake, breeding, migratory	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point; The SPA holds a mean of 32,500 breeding pairs, equivalent to 7% of the GB breeding population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Construction activity will not disturb birds nesting on seaward facing cliffs therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any kittiwake flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Herring gull, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is located approximately 0.2 km from the nearest point of the SPA; The SPA holds a mean of 9,400 breeding pairs, equivalent to 6% of the GB breeding population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Construction activity could displace birds from onshore foraging areas during the breeding season, therefore LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Herring gull were recorded crossing the alignment at Collision Risk Height (CRH) on 139 occasions across Sections A and 37 occasions across Section B, therefore LSE cannot be excluded.	LSE
	Guillemot, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point of the SPA; The SPA holds a mean of 106,700 breeding pairs, equivalent to 10% of the GB breeding population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Construction activity will not disturb birds nesting on seaward facing cliffs, therefore LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any guillemot flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Razorbill, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point of the SPA; The SPA holds a mean of 15,800 breeding pairs, equivalent to 11% of the GB breeding population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Construction activity will not disturb birds nesting on seaward facing cliffs, therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any razorbill flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Shag, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point of the SPA; The SPA holds a mean of 2,300 breeding pairs, equivalent to 6% of the GB breeding population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Construction activity will not disturb birds nesting on seaward facing cliffs therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys show the closest crossing the proposed alignment flight 40 km from the SPA, therefore LSE has been excluded.	No LSE
	Peregrine, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point of the SPA; The SPA holds a mean of 6 breeding pairs, equivalent to 0.5% of the GB breeding population (1985-1987);	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			NatureScot (2022) advise a buffer zone of 500-750 m to protect nesting peregrines; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Construction activity will not disturb birds nesting on seaward facing cliffs, therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys recorded 5 peregrine flights crossing the OHL within the published 18 km foraging range from the SPA. Therefore LSE cannot be excluded.	LSE
	Great black-backed gull, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point of the SPA; The SPA is estimated to hold a mean of in excess of 300,000 breeding seabirds, incorporating an average of 800 pairs of great black-backed gull, equivalent to 4 % of the GB breeding population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development and no disturbance to nesting cliffs or foraging habitat will occur; Construction activity will not disturb birds nesting on seaward facing cliffs, therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Great black-backed gull were recorded crossing the alignment at CRH on 58 occasions across Section A and on one occasion across Section B. Therefore LSE cannot be excluded.	LSE
	Cormorant, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point of the SPA; The SPA is estimated to hold a mean of in excess of 300,000 breeding seabirds, of which breeding cormorant constitute an average of 230 pairs equivalent to 3 % of the GB population (1985-1987);	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development and no disturbance to nesting cliffs or foraging habitat will occur; Construction activity will not disturb birds nesting on seaward facing cliffs, therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	There is no published SPA connectivity distance guidance for this species onshore, however there were no recorded crossing flights by cormorant within 9 km of the SPA, therefore LSE has been excluded.	No LSE
	Northern fulmar, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 0.2 km from the nearest point of the SPA; The SPA is estimated to hold a mean of in excess of 300,000 breeding seabirds, of which Northern fulmar constitute 15,000 pairs, equivalent to 3 % of the GB population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development and no disturbance to nesting cliffs or foraging habitat will occur; Construction activity will not disturb birds nesting on seaward facing cliffs, therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	There is no published guidance on SPA connectivity onshore for this species. However there were no recorded flights crossing the alignment by fulmar, therefore LSE has been excluded.	No LSE
Glen Affric to Strathconon SPA	Golden eagle, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is located approximately 5.1 km from the nearest point of the SPA; The SPA holds a mean of 10 active territories, equivalent to 2.2% of the GB breeding population (2003);	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			NatureScot advise that a buffer zone of 750-1,000 m to protect nesting golden eagles. For activities with a high potential for visual and audial disturbance (e.g. forestry operations), a buffer zone ≥1,500 m may be necessary; NatureScot connectivity distance for golden eagle is 6 km, and birds breeding within the SPA may be displaced from hunting areas during construction. Therefore LSE cannot be excluded; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys record 3 golden eagle flights crossing the proposed alignment within the published 9 km foraging range from the SPA, therefore LSE cannot be excluded.	LSE
Inner Moray Firth SPA and Ramsar	Osprey, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.4 km from the SPA at its closest point; The SPA holds up to 12.5% of the GB breeding population (2008 to 2012), with up to 25 territories within feeding range, with 4 pairs breeding within the site, 4% of the GB population; NatureScot (2022) advise a buffer zone of 350-750 m to protect ospreys during the breeding season from pedestrian disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Osprey may breed outside of the SPA and use estuarine waterbodies within the SPA to forage. There may be suitable breeding habitat within 10 km of the SPA and the Proposed Development lies within this buffer zone. Therefore LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure.	The 12 month of baseline surveys record 11 osprey flights crossing the proposed alignment within the published core foraging range of 10 km from the SPA, therefore LSE cannot be excluded.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Potential barrier effects as a result of the presence of infrastructure.		
	Common tern, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.4 km from the SPA at its closest point; The SPA holds a mean of 2% / 310 pairs of the GB breeding population; NatureScot (2022) advise a minimum buffer zone of 200 m to protect Arctic tern colonies from pedestrian disturbance, although a larger buffer zone may be required if terns are not habituated to disturbance or if there is likely to be aerial disturbance above the colony; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no common tern flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Bar-tailed godwit, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.4 km from the nearest point; The SPA holds a peak mean of 1,090 overwintering birds, equivalent to 2% of the GB wintering population (1992-1997); NatureScot (2022) advise a minimum buffer zone of 200-300m to protect foraging and roosting bar-tailed godwit during the nonbreeding season from pedestrian disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure.	The 12 months of baseline surveys did not record any flights of bar-tailed godwits across the Proposed Development, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Potential barrier effects as a result of the presence of infrastructure.		
	Greylag goose, migratory	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.4 km from the nearest point; The SPA holds a mean of 2,651 (1992-1997) overwintering birds, equivalent to 3% of the GB population; NatureScot (2022) guidance on disturbance distances for greylag geese suggests a disturbance buffer of 200-600 m; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Greylag goose has a core foraging range from roosts of up to 20 km; Given the relative distance of the Proposed Development from the SPA, loss of foraging habitat cannot be ruled out. Therefore LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys recorded 13 greylag goose flights crossing the proposed alignment within the 20 km foraging range, therefore LSE cannot be ruled out.	LSE
	Red-breasted merganser, migratory	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.4 km from the nearest point; The SPA holds a mean of 1,184 (1992-1997) overwintering birds, equivalent to 12% of the GB population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure.	Results of the 2023-2024 non-breeding season surveys did not record any flights of red-breasted merganser crossing the proposed alignment, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Potential barrier effects as a result of the presence of infrastructure.		
	Redshank, migratory	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.4 km from the nearest point; The SPA holds a mean of 1,621 (1992-1997) overwintering birds, equivalent to 1% of the GB population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Results of 12 months baseline surveys did not record any flights of redshank across the proposed alignment, therefore LSE has been excluded.	No LSE
	Wigeon, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.4 km from the nearest point; The Ramsar site holds a mean of 1.4% / 6,073 individual (1989-1994) of the GB overwintering population; NatureScot (2022) advise a buffer zone of 200-500 m to protect roosting and foraging birds during the non-breeding season from pedestrian and boating disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the distance from the Ramsar site, it is considered unlikely that indirect loss of bird habitats will occur. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Results of 12 month baseline surveys did not record any wigeon flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Teal, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.4 km from the Ramsar site; The Ramsar site holds a mean of 1.1% / 2,175 individuals (1998-2003) of the GB wintering population; There is no published guidance on SPA connectivity distances for this species; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the distance from the Ramsar site, it is considered very unlikely that indirect loss of bird habitats will occur. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no records of teal crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Goldeneye, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.4 km from the Ramsar site; The Ramsar site holds a mean of 2.6% / 665 individuals of the GB wintering population (1998-2003); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Goldeneyes are anticipated to spend the majority of non-breeding season entirely offshore / on the open sea and as such it is considered highly unlikely that the Proposed Development will result in disturbance and / or displacement of the species. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Goldeneye are anticipated to spend the vast majority of the non-breeding season entirely offshore / on the open sea and as such it is considered highly unlikely that the proposed alignment will result in accidental mortality of or present a barrier for the species; During the 12 months of baseline surveys, there were no goldeneye crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Scaup, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.4 km from the Ramsar site;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			The Ramsar site holds a mean of 5.3% / 405 individuals of the GB wintering population (1998-2003); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Scaup are anticipated to spend the vast majority of non-breeding season entirely offshore / on the open sea and as such it is considered highly unlikely that the Proposed Development will result in disturbance and / or displacement of the species. Therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any scaup flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Goosander, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.4 km from the nearest point of the SPA; The SPA holds a mean of 325 (1992/93 -1996/97) overwintering birds, equivalent to 4% of the GB population; There is no published SPA connectivity distance guidance available for this species; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The proposed alignment is over 7 km from estuarine open water habitat which may be used by goosander during the non-breeding season; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and the potential for LSE has been ruled out.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any goosander flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	Oystercatcher, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 4.4 km from the Ramsar site; The Ramsar site holds a mean of 1% / 3,457 individuals of the GB wintering population; NatureScot (2022) a buffer zone of 150-300m is suggested to protect foraging and roosting birds during the non-breeding season from pedestrian and watercraft disturbance; Given the relative distance of the Proposed Development from the closest point of the Ramsar site, it is considered unlikely that any effects of disturbance and displacement will be experienced. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	The 12 month of baseline surveys did not record any oystercatcher flights crossing the proposed alignment, therefore LSE has been excluded.	No LSE
	Curlew, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is located approximately 4.4 km from the nearest point; The SPA holds a mean of 1,262 (1992/93 -1996/97) overwintering birds, equivalent to 1% of the GB population; NatureScot (2022) a buffer zone of 200-650 m is suggested to protect foraging and roosting birds during the non-breeding season from pedestrian and watercraft disturbance; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Results of 12 months baseline surveys did not record any flights of curlew crossing the proposed alignment within 2 km of the SPA, therefore LSE has been excluded.	No LSE
	Cormorant, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 4.4 km from the nearest point;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			The SPA is estimated to hold a mean of 409 birds, equivalent to 3 % of the GB population (1992/93-1996/97); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated. Therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	There is no published SPA connectivity guidance available for this species, however there were no recorded flights by cormorant within 5 km of the proposed alignment. LSE can be excluded.	No LSE
Lairg and Strath Brora Lochs SPA	Black-throated diver, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 7.6 km from the closest part of the SPA; The SPA holds a mean of 3.9% / 6 pairs (1986-1996) of the GB breeding population; NatureScot (2022) advise that depending on the level of habituation to disturbance, a buffer zone of 500-750 m is suggested to protect breeding black-throated diver from pedestrian and boating (on breeding lochs) disturbance. For activities with a high potential for visual and audial disturbance (e.g. forestry operations), a buffer zone ≤900 m may be necessary; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the SPA there is no indirect loss of the bird habitat anticipated and LSE can be excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no black-throated diver flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
Morangie Forest SPA	Capercaillie, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 7.8 km from the nearest point of the SPA; The SPA holds a mean of 2.8% / 30 individuals of the GB population;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			NatureScot (2022) advise capercaillie has the potential to be disturbed on breeding grounds as well as at roosting areas and foraging grounds during the non-breeding season, that a buffer zone of 500-1,000 m is used to protect leks and a buffer zone of 100 m is used to protect nesting females to avoid pedestrian disturbance during the breeding season. Pedestrians should stick to paths when walking though capercaillie habitat at all times of the year and it is suggested that capercaillie habitat should not be disturbed within 100 m; The Proposed Development is approximately 7.8 km from the SPA and the nearest areas of mature woodland that will be affected by the Proposed Development are 9 km away. Novar SPA (also designated for capercaillie) is situated between Morangie SPA and the Proposed Development, and birds dispersing west from Morangie are likely to become part of the Novar population. Given the relative distance of the Proposed Development from the Morangie SPA and the presence of Novar SPA between the two, loss of habitat affecting the Morangie SPA population is not anticipated and LSE can be excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During the 12 months of baseline surveys, there were no capercaillie flights observed crossing the proposed alignment. Morangie SPA is approximately 7.8 km from the Proposed Development with extensive areas of moorland between the SPA and the Proposed Development to the West, and the Novar SPA to the southwest. Novar SPA (also designated for capercaillie) is situated between Morangie SPA and the Proposed Development to the southwest, and birds dispersing west from Morangie are likely to become part of the Novar SPA population. Given the relative distance of the Proposed Development from the Morangie SPA and the presence of Novar SPA between the two to the southwest, and extensive areas of moorland to the west, collision mortality of birds from the Morangie SPA are not predicted, and LSE can be excluded.	No LSE
Moray Firth SPA	Red-throated diver, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 0.2 km from the SPA; The SPA holds 1.9% / 324 birds (2001-2007) of the GB non-breeding population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Red-throated divers spend the non-breeding season entirely offshore / on the open sea and as such it is considered highly unlikely that the Proposed Development will result in disturbance and / or displacement of the species. Therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys there were no red-throated diver flights crossing the proposed alignment observed within connectivity distance of the SPA, therefore LSE has been excluded.	No LSE
	Great northern diver, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 0.2 km from the SPA; The SPA holds 5.8% / 144 birds (2001-2007) of the GB non-breeding population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Great northern divers spend the non-breeding season entirely offshore / on the open sea and as such it is considered highly unlikely that the Proposed Development will result in disturbance and / or displacement of the species. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys there were no great northern diver flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Slavonian grebe, wintering	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 0.2 km from the SPA; The SPA holds 3.9% / 43 birds (2001-2007) of the GB non-breeding population; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Slavonian grebes spend the non-breeding season entirely offshore / on the open sea and as such it is considered highly unlikely that the Proposed Development will result in disturbance and / or displacement of the species. Therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys there were no Slavonian grebe flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Migratory wintering waterfowl species; scaup, common eider, long-tailed duck, velvet scoter, common scoter, goldeneye, red-breasted merganser, and shag and breeding shag.	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located 0.2 km from the SPA; The SPA holds populations of GB significance (i.e. > 1% of total non-breeding populations) for all species (17.9% scaup, 2.9% eider, 45.5% long-tailed duck, 5.5% common scoter, 59.5% velvet scoter, 4.5% goldeneye, 1.8% red-breasted merganser, and 5.9% shag); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; The listed waterfowl are anticipated to spend the vast majority of non-breeding season entirely offshore / on the open sea and as such it is considered highly unlikely that the Proposed Development will result in disturbance and / or displacement of the species; Breeding shag colonies are restricted to coastal cliffs along the outer Moray Firth and will not be disturbed by Project construction activities; Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys there were no flights of SPA wintering waterfowl species crossing the proposed alignment observed, therefore LSE has been excluded. No flights of shag were recorded crossing the proposed alignment during the breeding season.	No LSE
North Caithness Cliffs SPA	Peregrine, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 12.8 km from the nearest point; The SPA holds a mean of 6 breeding pairs, equivalent to 0.5% of the GB breeding population (1985-1987); NatureScot (2022) advise a buffer zone of 500-750 m to protect nesting peregrines;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the closest point of the SPA it is considered unlikely in the extreme that any effects of disturbance and displacement will be experienced. Therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys there were no peregrine flights crossing the proposed alignment withing the foraging range observed, therefore LSE has been excluded.	No LSE
	Common guillemot, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 12.8 km from the nearest point; The SPA holds a mean of 38,300 individual birds, equivalent to 4% of the GB breeding population (1985-1987); Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the closest point of the SPA it is considered unlikely in the extreme that any effects of disturbance and displacement will be experienced. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Given the relative distance of the Proposed Development from the closest point of the SPA it is considered extremely unlikely that these species will be affected via either accidental collision with project infrastructure, or by experiencing a barrier effect from project infrastructure. During 12 months of baseline surveys there were no common guillemot flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Northern fulmar, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 12.8 km from the nearest point; The SPA holds an average of 110,000 (1985-1987) seabirds with nationally important populations of; kittiwake, 3% /13,100 pairs, fulmar, 3% / 14,700 pairs, common guillemot 4%, 38,300 pairs, and puffin 0.4% / 2,080 pairs;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the closest point of the SPA it is considered unlikely in the extreme that any effects of disturbance and displacement will be experienced. Therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Given the relative distance of the Proposed Development from the closest point of the SPA it is considered extremely unlikely that these species will be affected via either accidental collision with project infrastructure, or by experiencing a barrier effect from project infrastructure; During 12 months of baseline surveys there were no northern fulmar flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Black-legged kittiwake, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 12.8 km from the nearest point; The SPA holds an average of 110,000 (1985-1987) seabirds with nationally important populations of; kittiwake, 3% /13,100 pairs, fulmar, 3% / 14,700 pairs, common guillemot 4%, 38,300 pairs, and puffin 0.4% / 2,080 pairs; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the closest point of the SPA it is considered unlikely in the extreme that any effects of disturbance and displacement will be experienced. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Given the relative distance of the Proposed Development from the closest point of the SPA it is considered extremely unlikely that these species will be affected via either accidental collision with project infrastructure, or by experiencing a barrier effect from project infrastructure. During 12 months of baseline surveys there were no northern fulmar flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
	Atlantic puffin, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 12.8 km from the nearest point;	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			The SPA holds an average of 110,000 (1985-1987) seabirds with nationally important populations of; kittiwake, 3% /13,100 pairs, fulmar, 3% / 14,700 pairs, common guillemot 4%, 38,300 pairs, and puffin 0.4% / 2,080 pairs; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the closest point of the SPA it is considered unlikely in the extreme that any effects of disturbance and displacement will be experienced. Therefore LSE has been excluded.	
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	Given the relative distance of the Proposed Development from the closest point of the SPA it is considered extremely unlikely that these species will be affected via either accidental collision with project infrastructure, or by experiencing a barrier effect from project infrastructure. During 12 months of baseline surveys there were no Atlantic puffin flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE
North Inverness Lochs SPA	Slavonian grebe, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located approximately 9.4 km from the nearest point; The SPA holds a mean of 12% / 7pairs (1991-1995) of the GB population; NatureScot (2002) advise that a minimum buffer zone of 150-350 m is suggested to protect both breeding and nonbreeding Slavonian grebe from pedestrian disturbance. There is no published SPA connectivity distance guidance available for this species during the breeding season; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Given the relative distance of the Proposed Development from the closest point of the SPA it is considered unlikely in the extreme that any effects of disturbance and displacement will be experienced. Therefore LSE has been excluded.	No LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys there were no Slavonian grebe flights crossing the proposed alignment observed, therefore LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
Novar SPA	Capercaillie, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The proposed alignment is located approximately 1.9 km from the nearest point of the SPA; The SPA holds a mean of 1.2% / 13 individuals (1999-2003) of the GB population; NatureScot (2022) advise capercaillie has the potential to be disturbed on breeding grounds as well as at roosting areas and foraging grounds during the non-breeding season, that a buffer zone of 500-1,000 m is used to protect leks and a buffer zone of 100 m is used to protect nesting females to avoid pedestrian disturbance during the breeding season. Pedestrians should stick to paths when walking though capercaillie habitat at all times of the year and it is suggested that capercaillie habitat should not be disturbed within 100 m; Traffic along the main road to the construction access roads will not be substantially increased by the Proposed Development; Although the Proposed Development is beyond 1 km from the SPA, there is the potential for birds from the SPA to use functionally linked woodlands that may be affected by the Proposed Development. As a result, LSE cannot be excluded.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys there were no capercaillie flights crossing the proposed alignment observed. However felling of woodland as part of the Proposed Development may affect the ability of birds from the SPA to disperse to new habitats. And there is a potential for birds to collide with towers in areas of felled woodland. As a result LSE cannot be excluded.	LSE
Strath Carnaig and Strath Fleet Moors SPA	Hen harrier, breeding	Indirect loss of bird habitats due to disturbance and displacement.	The Proposed Development is located within part of the SPA; The SPA holds a mean of 2.5% / 12 breeding pairs (2002-2004), of the GB population of hen harrier; NatureScot (2022) advise that hen harriers are most likely to be disturbed at nest sites early on in the breeding season as well as at communal roosting areas and potentially foraging grounds during the nonbreeding season. Depending on the level of habituation to disturbance, a buffer zone of 300-750 m is suggested to protect both breeding and nonbreeding hen harriers from disturbance, but habituation to disturbance influences the size of the buffer required;	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			The published maximum foraging range for hen harriers is 10 km NatureScot (2016); Baseline surveys did not record any breeding hen harrier within potential disturbance distance of the proposed alignment, however data obtained from RSPB and HRSG indicate historical breeding records in this area. As a result, in the absence of mitigation, there is the potential for LSE due to indirect loss of hen harrier breeding habitat within the SPA.	
		Direct loss of habitat within the SPA due to disturbance and displacement.	As the proposed alignment passes through the SPA, there is the potential for direct loss of breeding habitat. Baseline surveys did not record any hen harrier territories along the proposed alignment, however data obtained from RSPB and HRSG indicate historical breeding records in this area. As a result, in the absence of mitigation, there is the potential for LSE due to direct loss of hen harrier breeding habitat within the SPA. should the Proposed Development occur within the breeding / foraging buffer zones for this species.	LSE
		Accidental mortality due to collision with project infrastructure. Potential barrier effects as a result of the presence of infrastructure.	During 12 months of baseline surveys 11 hen harrier flights crossing the proposed alignment within the 2km core foraging range for hen harrier of the SPA . As a result, the potential for LSE cannot be excluded.	LSE
SACs				
Berriedale and Langwell Waters SAC	Annex II species: Atlantic salmon	Direct loss of habitat.	The Proposed Development crosses both rivers. No in-stream works are anticipated, and the closest construction works will take place approximately 95 m from the SAC. As a result, no direct loss of habitat within the SAC is predicted.	No LSE
		Indirect loss of habitat.	The Proposed Development crosses both rivers. The closest construction works (an access track) will take place approximately 95 m from the SAC. Felling within the Operational Corridor (OC) will also be required, up to 45 m either side of the proposed alignment.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			In the absence of mitigation, it is possible that construction activities could result in indirect impacts to the SAC as a result of run off/pollution during construction activity. Therefore LSE cannot be excluded.	
Conon Islands SAC	Annex I habitats: alder and ash woodlands	Indirect habitat loss due to pollution or ground water effects.	The closest section of the SAC is 0.3 km upstream from the Proposed Development, with further sections of the SAC over 3 km downstream along the watercourse. The Proposed Development crosses a river that forms a hydrological connection to the SAC but no in-stream works are anticipated and all construction works will take place outside of the maximum 30 m riparian corridor recommended by SEPA[31] to protect watercourses. With this buffer in place and due to the distance between downstream sections of the SAC and the Proposed Development, no LSE are expected.	No LSE
Caithness and Sutherland Peatlands SAC	Annex I primary habitats: Oligotrophic to mesotrophic standing waters; natural dystrophic lakes and ponds; and blanket bogs. Annex I qualifying habitats: Northern Atlantic wet heaths with cross-leaved heath; transition mires and quaking bogs, and depressions on peat substrates of	Direct loss of habitats, habitat fragmentation within the SAC due to construction work.	The proposed alignment passes through the Caithness and Sutherland Peatlands SAC for a maximum distance of 3.61 km; The proposed alignment of the OHL is designed so as to be situated towards the fringes of the existing SAC boundaries but will still involve construction within the SAC. Therefore LSE cannot be excluded.	LSE
		Indirect loss of habitats, habitat fragmentation within the SAC due to construction work.	Construction activity within the SAC could result in indirect effects on habitats such as habitat loss or fragmentation due to potential disruption of hydrological connectivity to wetlands and peatlands. The assessment assumes that there is potential for indirect impacts to wetland and peatland habitats within 30 m of permanent access tracks and within 10 m of other infrastructure such as tower bases. Therefore LSE cannot be excluded.	LSE

[31] SEPA, 2024. Recommended Riparian Corridor Layer for use in Land Use Planning. Available online at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.sepa.org.uk%2Fmedia%2Fpuqhuwhn%2Frecommended-riparian-corridor-note.docx&wdOrigin=BROWSELINK

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
	the *Rhynchosporion*.			
	Annex II species: otter	Direct loss of supporting habitat within the SAC.	Construction activity could result in the direct loss of supporting habitat within the SAC for otter in the absence of mitigation. Therefore LSE cannot be excluded.	LSE
		Indirect loss of habitat within the SAC due to disturbance and displacement.	Construction activity could result in an indirect loss of supporting habitat within the SAC for otter through disturbance and displacement in the absence of mitigation. Therefore LSE cannot be excluded.	LSE
		Direct mortality.	In the absence of mitigation there is the potential for direct mortality of otter within the SAC during construction. Therefore LSE cannot be excluded.	LSE
	Annex II species: marsh saxifrage.	Direct loss of habitat within the SAC due to disturbance and displacement.	Construction work for the Proposed Development will result in habitat loss where set-down areas are located and where towers are to be installed. Therefore LSE cannot be excluded.	LSE
		Direct loss of individuals.	Construction work for the Proposed Development will result in habitat loss where set-down areas are located and where towers are to be installed. Therefore LSE cannot be excluded.	LSE
Dornoch Firth and Morrich More SAC	Annex II species: otter	Indirect habitat loss due to pollution or ground water effects.	The Proposed Development is located approximately 2.4 km west of the SAC at its nearest point. There is the potential for indirect loss of supporting habitats for otter as a result of construction run off or pollution via connected water pathways. However, due to the distance involved between the SAC and the Proposed Development, and the abundance of suitable supporting habitat for otter between the SAC and the Proposed Development, no LSE are expected.	No LSE
Mound Alderwoods SAC (and Dornoch Firth and Loch Fleet Ramsar)	Annex I habitats: alder and ash woodlands	Indirect habitat loss due to pollution or ground water effects.	The SAC is adjacent to the Proposed Development (the closest construction work is a temporary access track) and approximately 0.2 km from the proposed alignment. Tower construction compounds are within 30 m of the River Fleet, approximately 1 km upstream of the SAC. In the absence of mitigation, it is possible that construction activities could result in indirect impacts to the SAC as a result of run off/pollution during construction activity. Therefore LSE cannot be excluded.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
River Evelix SAC	Annex II species: freshwater pearl mussel	Indirect habitat loss due to pollution or ground water effects.	The Proposed Development passes to the north of the River Evelix SAC at a distance of 2.3 km at its nearest point. The Proposed Development crosses a minor watercourse that is hydrologically connected to the SAC at a distance of approximately 5.5 km from the SAC. There is the potential for indirect loss of supporting habitats for freshwater pearl mussel as a result of construction run off or pollution. However, there are no in-stream works at this location and a riparian corridor buffer recommended by SEPA has been used to protect watercourses. With this buffer in place to protect bankside vegetation and the distance involved between the watercourse and the Proposed Development, no LSE are expected.	No LSE
River Oykel SAC	Annex II species: freshwater pearl mussel	Direct loss of habitat.	The Proposed Development crosses the River Oykel, with the alignment crossing the SAC. The closest supporting tower will be approximately 100 m south of the SAC; No in-stream works are anticipated, and the closest construction works, a temporary access track, will take place approximately 40 m from the SAC. As a result, no direct loss of habitat within the SAC is predicted and no LSE are expected.	No LSE
		Indirect loss of habitat.	The Proposed Development crosses the SAC and the closest construction works will take place approximately 40 m from the SAC. As the Proposed Development over spans the SAC, LSE has not been excluded.	LSE
	Annex II species: Atlantic salmon	Direct loss of habitat.	The Proposed Development crosses the River Oykel, with the alignment crossing the SAC. The closest supporting tower will be approximately 100 m south of the SAC; No in-stream works are anticipated, and the closest construction works, a temporary access track, will take place approximately 40 m from the SAC. As a result, no direct loss of habitat within the SAC is predicted and no LSE are expected.	No LSE
		Indirect loss of habitat.	The Proposed Development crosses the SAC and the closest construction works will take place approximately 40 m from the SAC. As the Proposed Development over spans the SAC, LSE has not been excluded.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
River Thurso SAC	Annex II species: Atlantic salmon	Indirect habitat loss due to pollution or ground water effects.	The Proposed Development crosses the Burn of Tacher (which is hydrologically connected to the River Thurso) approximately 1.1 km upstream of the SAC. There is the potential for indirect loss of supporting habitats for Atlantic salmon as a result of construction run off or pollution. However, no in-stream works are proposed at this location. All infrastructure will be situated outside of a riparian corridor buffer recommended by SEPA to protect watercourses: the nearest tower (Tower 36) is situated approximately 40 m from the Burn of Tacher and the nearest temporary access track is approximately 35 m from the burn. With this buffer in place to protect bankside vegetation and the distance between the burn and the SAC (which falls outside of the predicted zone of influence for the project), and with standard pollution prevention measures in place, no LSE are expected.	No LSE
Ramsar sites (non SPA or SAC features[#]				
Caithness and Sutherland Peatlands Ramsar	Nationally Scarce *Sphagnum lindbergii*	Direct loss of habitat.	The Proposed Development crosses the Caithness and Sutherland Peatlands Ramsar site. *S. lindbergii* is known from a number of locations within the Caithness and Sutherlands Peatlands Ramsar Site. The closest records to the proposed alignment lie within the constituent Lochan Buidhe Mires SSSI, and Ben Griams SSSI and West Halladale SSSIs. The closest of these SSSIs (Ben Griams) is approximately 32 km west of the proposed alignment. As a result, no direct loss of habitat is predicted for *S. lindbergii*. Therefore LSE has been excluded.	No LSE
		Indirect loss of habitat.	Due to the distance between the Proposed Development and existing records of *S. lindbergii*, no indirect loss of habitat for *S. lindbergii* is predicted. Therefore LSE has been excluded.	No LSE
		Direct loss of individuals.	Due to the distance between the Proposed Development and existing records of *S. lindbergii*, no indirect loss of individuals is predicted. Therefore LSE has been excluded.	No LSE
	Nationally Scarce *S. majus*	Direct loss of habitat.	The proposed Development crosses the Caithness and Sutherland Peatlands Ramsar site.	LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			S. majus is known from a number of locations within the Caithness and Sutherlands Peatlands Ramsar Site, including the constituent Shielton Peatlands SSSI which the Proposed Development will pass through. As a result, there may be a direct loss of supporting habitats of *S. majus* within the Ramsar Site. Therefore LSE cannot be excluded.	
		Indirect loss of habitat.	The Proposed Development passes through a part of the Ramsar Site where *S. majus* has been recorded (the constituent Shielton Peatlands SSSI). There may be indirect loss of supporting habitat as a result of changes to hydrology or pollution during construction. Therefore LSE cannot be excluded.	LSE
		Direct loss of individuals.	The Proposed Development passes through a part of the Ramsar Site where *S. majus* has been recorded (the constituent Shielton Peatlands SSSI). There may be a direct loss of individuals as a result of habitat loss during construction. Therefore LSE cannot be excluded.	LSE
	Nationally Scarce bog orchid	Direct loss of habitat.	The proposed Development crosses the Caithness and Sutherland Peatlands Ramsar site. Bog orchid is known from a number of locations within the Caithness and Sutherlands Peatlands Ramsar Site, including the constituent Shielton Peatlands SSSI which the Proposed Development will pass through. As a result, there may be a direct loss of supporting habitats of bog orchid within the Ramsar Site. Therefore LSE cannot be excluded.	LSE
		Indirect loss of habitat.	The Proposed Development passes through a part of the Ramsar Site where bog orchid has been recorded (the constituent Shielton Peatlands SSSI). There may be indirect loss of supporting habitat as a result of changes to hydrology or pollution during construction. Therefore LSE cannot be excluded.	LSE
		Direct loss of individuals.	The Proposed Development passes through a part of the Ramsar Site where bog orchid has been recorded (the constituent Shielton Peatlands SSSI). There may be a direct loss of individuals as a result of habitat loss during construction. Therefore LSE cannot be excluded.	LSE
	Nationally Rare *Oreodytes alpinus*	Direct loss of habitat.	The proposed Development crosses the Caithness and Sutherland Peatlands Ramsar site.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
			The water beetle *O.alpinus* is known from a number of locations within the Caithness and Sutherlands Peatlands Ramsar Site. The closest record comes from the constituent Strathmore Peatlands SSSI which is approximately 6.1 km west of the proposed alignment. *O.alpinus* requires relatively large waterbodies with sandy, disturbed substrate which are not found in parts of the Ramsar Site which the Proposed Development passes through. As a result, no direct loss of habitat is predicted for *O.alpinus* and LSE has been excluded.	
		Indirect loss of habitat.	Due to the distance between the Proposed Development and existing records of *O.alpinus* and the lack of suitable habitat along the Proposed Development, no indirect loss of habitat for *S. lindbergii* is predicted. LSE has been excluded.	No LSE
		Direct loss of individuals.	Due to the distance between the Proposed Development and existing records of *O.alpinus*, no indirect loss of individuals is predicted. LSE has been excluded.	No LSE
	Nationally Rare freshwater pearl mussel	Direct loss of habitat.	The proposed alignment crosses the Caithness and Sutherland Peatlands Ramsar site. Freshwater pearl mussel is a feature of the Ramsar site due to the presence of populations within the River Naver and River Borgie. The River Naver is approximately 45 km west of the Proposed Development and the River Borgie is approximately 48 km west of the Proposed Development. Due to the distance between known populations and the Proposed Development no effects are predicted. LSE has been excluded.	No LSE
		Indirect loss of habitat.	Due to the distance between known populations of freshwater pearl mussel and the Proposed Development no effects are predicted. LSE has been excluded.	No LSE
		Direct loss of individuals.	Due to the distance between known populations of freshwater pearl mussel and the Proposed Development no effects are predicted. LSE has been excluded.	No LSE

Designated Site	Features Screened In	Relevant Effect	Consideration of LSE	Potential for LSE
Dornoch Firth and Loch Fleet Ramsar	Estuaries and sand dune habitats	Indirect loss of habitat.	The estuarine and sand dune habitats of the Ramsar site are situated near to the coast and do not occur close to the Proposed Development. The start of the estuarine habitat in Loch Fleet lies 3 km to the east of the Proposed Development, and the majority of sand dune habitats are over 6.6 km to the east. Due to the distance between the Proposed Development and the estuarine and sand dune habitats of the Ramsar, no indirect loss of habitat is predicted. LSE has been excluded.	No LSE
	Plants – Baltic rush (*Juncus balticus*) Seaside centaury (*Centaurium littorale*) Dwarf eelgrass *(Zostera noltei*) and eelgrass (*Z. marina*)	Indirect loss of habitat.	Baltic rush and seaside centaury are associated with sand dune and saltmarsh habitats. Dwarf eelgrass and eelgrass grow within estuarine habitats. Due to the distance between the Proposed Development and these habitats, and with standard pollution measures in place, no effect from pollution or sediment run off is predicted. No indirect loss of habitat or the associated plants is expected and LSE has been excluded.	No LSE
	Otter	Indirect loss of habitat.	The Proposed Development is located adjacent to the Ramsar site at its nearest point. There could be an indirect loss of supporting habitats for otter as a result of construction run off or pollution. As a result, in the absence of mitigation, there is the potential for LSE.	LSE

6.3 In Combination Assessment

6.3.1 The approach to the cumulative effects assessment for the Proposed Development is detailed in **EIA Volume 2, Chapter 5: EIA Process and Methodology**. This chapter identifies a list of EIA developments which will be considered for potential cumulative effects. In-combination effects will be considered in relation to:

- the in-combination effects of the Proposed Development and other SSEN Transmission Accelerated Strategic Transmission Investment (ASTI) associated developments required to connect the Proposed Development to the network – referred to as 'intra-project' effects; and
- the in-combination effects of the Proposed Development and other SSEN Transmission and third-party projects – referred to as 'inter-project' effects.

6.3.2 For the initial screening of other projects which may result in in-combination effects on designated sites, all projects from the initial list of EIA developments that may affect the designated sites identified in this HRA have been considered **(Table 6-2** and **Table 6-3)**. In terms of habitat features, any projects within 1 km of the designated site were considered. For ornithology features, species connectivity distances[32] to SPAs were used to identify other developments which may result in cumulative impacts on populations of the same species.

6.3.3 These projects were then reviewed to identify any cases where potential LSE have been predicted (or could not be ruled out) for the same qualifying interest species as identified for the Proposed Development, or where these projects could result in LSE in-combination with the Proposed Development, based on published EIAs or HRAs. In these cases, the potential for in-combination effects has been identified and documented in **Tables 6-2 and 6-3**. Where relevant project information is not available (for example where projects are in early development or at the screening letter stage) the potential for in-combination effects cannot be assessed at this time. Project locations are illustrated in **Volume 3, Figure 5.1 Cumulative Developments.**

[32] Scottish Natural Heritage (now NatureScot) 2016. Assessing Connectivity with Special Protection Areas (SPAs). Guidance. Version 3.

Table 6-2 List of projects considered for 'intra-project' in-combination effects

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
Banniskirk 400kV Substation and High-Voltage Direct Current (HVDC) Converter Station	24/04898/FUL	Under Consideration	Adjacent	• Caithness Lochs SPA (geese and swans)
Carnaig 400 kV Substation	24/05062/FUL	Under Consideration	Adjacent	• Dornoch Firth and Loch Fleet SPA / Ramsar • Strath Carnaig and Strath Fleet Moors SPA (hen harrier)
Fanellan 400 kV Substation and Converter Station	24/02655/SCOP	Under Consideration	Adjacent	• Inner Moray Firth SPA and Ramsar • Moray Firth SPA • Glen Affric to Strathconon SPA • Cromarty Firth SPA and Ramsar

Table 6-3 List of projects considered for 'inter-project' in-combination effects

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
Abhainn Dubh Wind Farm	23/02754/S36	Under Consideration	Adjacent	• Glen Affric to Strathconon SPA (golden eagle)
Abhainn Dubh 132 kV OHL Wind Farm Connection	25/00218/SCRE	Screening Application EIA Required	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Achany Extension Wind Farm	21/03695/S36	Approved by Scottish Ministers	~10 km north	• Caithness and Sutherland Peatlands SAC / SPA / Ramsar (peatland habitats, otter, range of bird species)
Acheilidh Wind Farm (fka Lairg III)	24/02094/S36	S36 Raise Objection	~2 km north	• Dornoch Firth and Loch Fleet SPA / Ramsar (osprey) • Strath Carnaig and Strath Fleet Moors SPA (hen harrier)

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
Ackron Wind Farm	23/06023/SCOP	Scoping Application Decision Issued	~25 km west	Insufficient information available for analysis of in-combination effects at this time.
Allt An Tuir Renewable Energy Park	23/06043/SCOP	Scoping Application Decision Issued	~12 km north west	• Caithness and Sutherland Peatlands SPA / Ramsar (range of bird species)
Ayre Offshore Wind Farm Grid Connection	24/00243/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Balblair Wind Farm	24/01500/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Baledigle Wind Farm	24/03036/SCOP	Scoping Application Decision Issued	~22 km north west	Insufficient information available for analysis of in-combination effects at this time.
Ballach Wind Farm	24/04177/SCOP	Scoping Application Decision Issued	~1 km west	Insufficient information available for analysis of in-combination effects at this time.
Banniskirk – Sinclair's Bay HVDC UGC	N/A	Early Development	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Banniskirk – Spittal 275 kV UGC Connection	N/A	Early Development	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Beauly to Blackhillock to New Deer to Peterhead 400kV OHL	24/03064/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Braelangwell Wind Farm	24/04752/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Cairnmore Hill Wind Farm (Re-design)	22/03558/FUL	Under Consideration	~14 km north west	• Caithness Lochs SPA and Ramsar (geese and swans)
Camster II Wind Farm	19/03015/FUL	Appeal Allowed	~10 km east	• Caithness and Sutherland Peatlands SAC / Ramsar (peatland habitats, otter, range of bird species) • Caithness Lochs SPA / Ramsar (greylag goose)

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
				• East Caithness Cliffs SPA
Carn Na Saobhaidh Wind Farm	24/03625/SCOP	Scoping Application Decision Issued	~21 km south east	Insufficient information available for analysis of in-combination effects at this time.
Carnaig – Loch Buidhe 275 kV UGC Connection	N/A	Early Development	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Carn Fearna Wind Farm	23/03238/SCOP	Scoping Application Decision Issued	~5 km north west	Insufficient information available for analysis of in-combination effects at this time.
Carn Fearna 132 kV OHL Wind Farm Connection	25/00219/SCRE	Awaiting decision	~5 km west	Insufficient information available for analysis of in-combination effects at this time.
Ceislein Wind Farm	24/03524/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Chleansaid Wind Farm	22/01635/S36	Approved by Scottish Ministers	~15 km north	• Caithness and Sutherland Peatlands SPA / Ramsar (greylag goose) • Dornoch Firth and Loch Fleet SPA / Ramsar (greylag goose)
Chrathaich Wind Farm	23/03311/S36	S36 Raise No Objection	~14 km south west	• Glen Affric to Strath Conon SPA (golden eagle)
Cnoc Farasd Wind Farm	24/04447/SCOP	Scoping Application Decision Issued	~10 km south west	Insufficient information available for analysis of in-combination effects at this time.
Cogle Moss	22/00462/S42	Application Permitted	~8 km east	• Caithness and Sutherland Peatlands SPA / Ramsar (golden plover and hen harrier) • Caithness Lochs SPA / Ramsar (greylag goose and whooper swan) • East Caithness Cliffs SPA (great black-backed gull and peregrine)
Coillie Beith Wind Farm	24/03235/SCOP	Scoping Application Decision Issued	~21 km west	Insufficient information available for analysis of in-combination effects at this time.
Coille Line (fka Fiag) Wind Farm	24/03086/SCOP	Scoping Application Decision Issued	~28 km north west	Insufficient information available for analysis of in-combination effects at this time.

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
Creachan Wind Farm	24/03825/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Creag Riabhach Wind Farm Extension	23/02936/S36	Approved by Scottish Ministers	~28 km north	• Caithness and Sutherland Peatlands SAC / SPA / Ramsar (peatland habitats, bird interests)
Creag Riabhach Wind Farm Connection	20/01014/S37	Under Construction	~13 km north	Insufficient information available for analysis of in-combination effects at this time.
Forsinain Forest Wind Farm	23/04894/SCOP	Scoping Application Decision Issued	~25 km north west	Insufficient information available for analysis of in-combination effects at this time.
Forss III Wind Farm	20/04455/FUL	Application Permitted	~19 km north west	• Caithness Lochs SPA / Ramsar (greylag goose)
Garvary Wind Farm	21/01921/S36	Under Consideration	Adjacent	• Caithness and Sutherland Peatlands SPA / Ramsar (varied bird species) • Dornoch Firth and Loch Fleet SPA / Ramsar (breeding osprey, non-breeding greylag geese, wintering waders and wildfowl) • River Oykel SAC • Strath Carnaig and Strath Fleet Moors SPA (hen harrier)
Goticlay Wind Farm Redesign	23/05188/S36	Approved by Scottish Ministers	~2 km east	• Caithness and Sutherland Peatlands SPA / Ramsar (various bird species) • Caithness Lochs SPA / Ramsar (greylag goose and whooper swan) • East Caithness Cliffs SPA (herring gull, black-backed gull)
Hill of Lynchrobbie Wind Farm	23/03246/SCOP	Scoping Application Decision Issued	~2 km east	Insufficient information available for analysis of in-combination effects at this time.
Hollandmey Energy Development	21/05591/S36	Approved by Scottish Ministers	~15 km north east	• Caithness and Sutherland Peatlands SPA / Ramsar (golden plover, greylag goose) • Caithness Lochs SPA / Ramsar (whooper swan, Greenland white-fronted goose)
Inveroykel Wind Farm	24/04326/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Kirkton Energy Park	22/05533/S36	Awaiting Decision	~25 km west	• Caithness and Sutherland Peatlands SAC, SPA and Ramsar (peatland habitats and bird interests)

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
				• Caithness Lochs SPA / Ramsar
Lairg II Wind Farm Redesign	21/00849/FUL	Application Permitted	~3 km north	Insufficient information available for analysis of in-combination effects at this time (documents not available online).
Limekiln Extension Wind Farm	20/01905/S36	Approved by Scottish Ministers	~16 km north west	• Caithness and Sutherland Peatlands SPA / Ramsar
Limekiln Wind Farm	21/03750/S36	Approved by Scottish Ministers	~17 km north west	• Caithness and Sutherland Peatlands SPA / Ramsar
Limekiln Wind Farm Connection	ECU00002043	Under construction	~19 km north west	• Caithness and Sutherland Peatlands SPA / Ramsar • Caithness Lochs SPA / Ramsar
Lochend Wind Farm Extension	24/02641/FUL	Under Consideration	~15 km north east	• Caithness and Sutherland Peatlands SPA / Ramsar (greylag goose and hen harrier) • Caithness Lochs SPA / Ramsar (greylag goose)
Loch Toftingall Battery Energy Storage System (BESS)	23/04690/FUL	Under Consideration	~1 km west	• Caithness and Sutherland Peatlands SPA / Ramsar (various bird species)
Lynemore Wind Farm	24/01633/SCOP	Scoping Application Decision Issued	~25 km south east	Insufficient information available for analysis of in-combination effects at this time.
Meall Buidhe Wind Farm	20/02659/FUL	Appeal Allowed	~16 km west	• Caithness and Sutherland Peatlands SPA / Ramsar (range of bird species)
Melvich Wind Energy Hub	23/02320/S36	Awaiting Decision	~27 km north west	• Caithness and Sutherland Peatlands SPA / Ramsar • Caithness Lochs SPA / Ramsar
Ouglassy Wind Farm	24/00902/SCOP	Scoping Application Decision Issued	Adjacent	Insufficient information available for analysis of in-combination effects at this time.
Sallachy Wind Farm	21/01615/FUL	Application Permitted	~25 km north west	• Caithness and Sutherland Peatlands SPA / Ramsar (particularly golden plover, dunlin, greenshank)
Shinness Wind Farm	ECU00004597	Under Consideration	~20 km north west	• Caithness and Sutherland Peatlands SPA /Ramsar (range of bird species)

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
				• Strath Carnaig and Strath Fleet Moors SPA (hen harrier)
Slickly Wind Farm	19/0561124/FUL	Appeal Allowed	~16 km north west	• Caithness and Sutherland Peatlands SAC, SPA and Ramsar (peatland habitats and a range of bird species) • Caithness Lochs SPA / Ramsar (whooper swan, greylag goose)
Strath Oykel Wind Farm	22/02717/S36	Approved by Scottish Ministers	~20 km west	• Caithness and Sutherland Peatlands SPA / Ramsar
Strath Tirry Wind Farm	20/05067/FUL	Application Permitted	~17 km north west	• Caithness and Sutherland Peatlands SPA / Ramsar (hen harrier, golden plover, red-throated diver) • Caithness Lochs SPA / Ramsar (greylag goose, whooper swan)
Strathrory Wind Farm Redesign	22/02442/FUL	Appeal Allowed	~6 km east	No potential for in-combination effects identified.
Strathy South Wind Farm Grid Connection	24/01442/SCOP	Scoping Application Decision Issued	~25 km west	• Caithness and Sutherland Peatlands SAC, SPA and Ramsar (peatland habitats and bird interests)
Strathy Wood Wind Farm Grid Connection	24/05153/S37	Under Consideration	~25 km west	• Caithness and Sutherland Peatlands SAC, SPA and Ramsar (peatland habitats and bird interests)
Swarclett Wind Farm	24/04932/FUL	Under Consideration	~7 km north east	• Caithness Lochs SPA / Ramsar (greylag goose, whooper swan)
Tarvie Wind Farm	23/03044/SCOP	Scoping Application Decision Issued	~5 km west	Insufficient information available for analysis of in-combination effects at this time.
Thurso BESS	25/00240/SCRE	Under Consideration	~9 km north	Insufficient information available for analysis of in-combination effects at this time.
Tormsdale Wind Farm	21/04984/S36	S36 Raise Objection	~2 km west	• Caithness and Sutherland Peatlands SAC / Ramsar (peatland habitats, otter) • Caithness and Sutherland Peatlands SPA / Ramsar (hen harrier, short-eared owl)
Watten Wind Farm	23/04113/S36	Under Consideration	Adjacent	• Caithness and Sutherland Peatlands SAC, SPA and Ramsar (peatland habitats, hen harrier, merlin and red-throated diver) • East Caithness Cliffs SPA (herring gull and great black-backed gull)

Project	Planning Ref	Status	Distance from SLBB	Potential for In-combination Effects Identified
West of Orkney Wind Farm	23/05353/PIP	Application Permitted	Adjacent	• Caithness and Sutherland Peatlands SAC, SPA and Ramsar (otter, golden eagle) • Caithness Lochs SPA / Ramsar (swans and geese) • River Thurso SAC (Atlantic salmon)
Western Isles HVDC UGC	N/A	Early Development		Insufficient information available for analysis of in-combination effects at this time.

6.4 Summary of Potential LSEs

6.4.1 A summary of the European sites, features and impacts for which a potential for an LSE have been identified, either for the Proposed Development alone or in-combination with other projects, are presented in **Table 6-4** below.

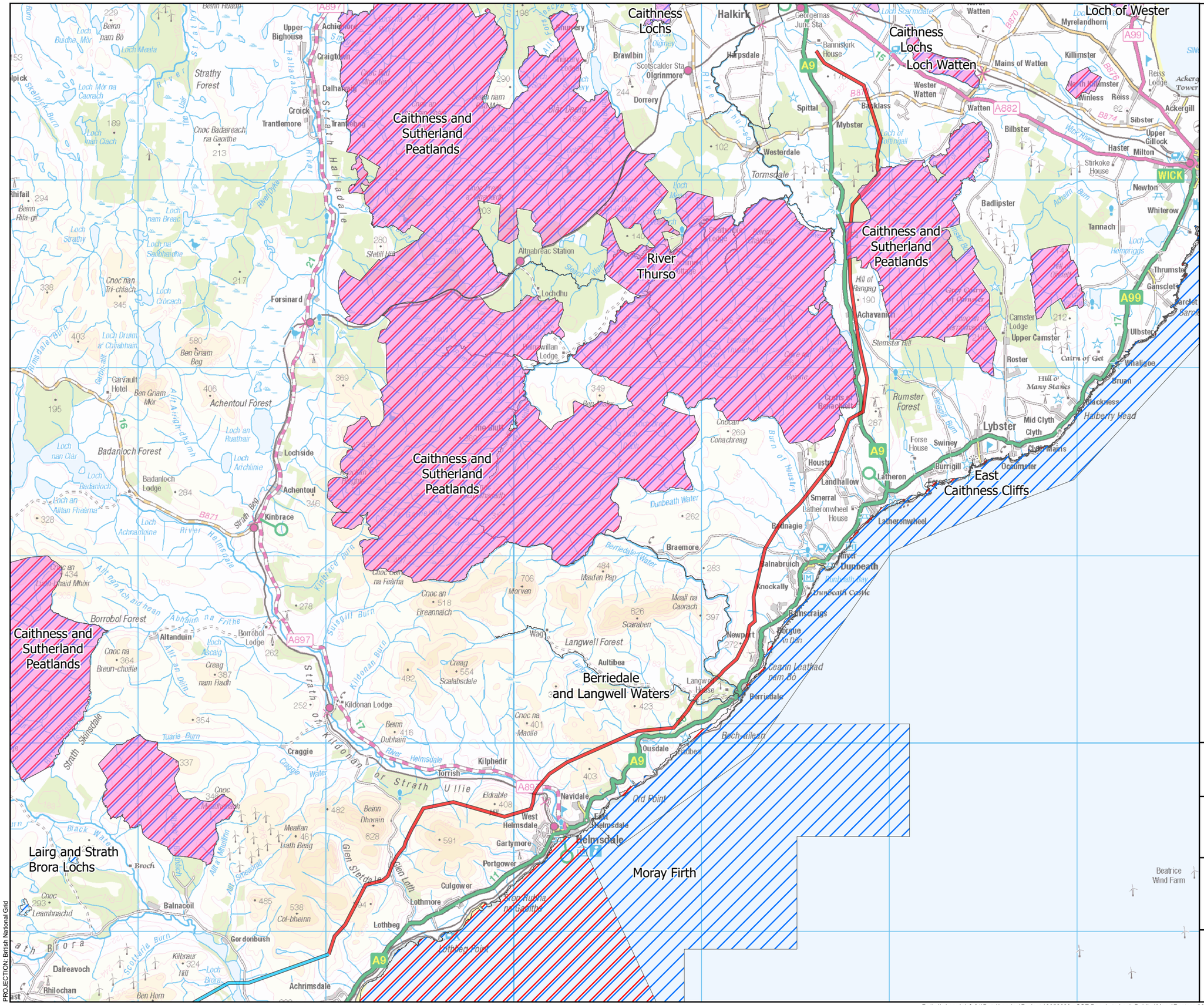
Table 6-4 European sites and features for which Potential LSEs have been identified

Site	Feature	Project Phase: Construction (C) Operation (O)	Potential Effect: Accidental mortality (A) Barrier effects (B) Direct habitat loss (D), Indirect habitat loss (I)
Caithness & Sutherland Peatlands SPA/Ramsar	Red-throated diver, breeding	C,O	A, B
	Golden plover, breeding	C,O	D, I
	Dunlin, breeding	C,O	D, I
	Greenshank, breeding	C,O	D, I
	Hen harrier, breeding	C,O	A, B, D, I
	Golden eagle, breeding	C,O	A, B, I
	Short-eared owl, breeding	C,O	A, B, I
	Merlin, breeding	C,O	A, B, D, I
	Common scoter, breeding	C, O	A, B, I
	Wigeon, breeding	C, O	I
Caithness Lochs SPA/Ramsar	Whooper swan, wintering	C, O	A, B, I
	Greenland white-fronted goose, wintering	C, O	I
	Greylag goose, wintering	C, O	A, B, I
Cromarty Firth SPA/Ramsar	Osprey, breeding	C,O	A, B, I
	Whooper swan, wintering	C,O	A, B, I
	Greylag goose, wintering	C,O	A, B, I
Dornoch Firth and Loch Fleet SPA/Ramsar	Osprey, breeding	C,O	A, B, I
	Greylag goose, wintering	C,O	A, B, I
	Wigeon, wintering	C,O	I
	Bar-tailed godwit, wintering	C, O	I
	Curlew, wintering	C,O	A, B, I
	Teal, wintering	C,O	I
	Redshank, non-breeding	C ,O	I
	Dunlin, wintering	C,O	I
	Oystercatcher, wintering	C,O	I
	Herring gull, breeding / resident	C, O	A, B, I

Site	Feature	Project Phase: Construction (C) Operation (O)	Potential Effect: Accidental mortality (A) Barrier effects (B) Direct habitat loss (D), Indirect habitat loss (I)
East Caithness Cliffs SPA	Peregrine, resident breeding	C, O	A, B
	Great black-backed gull, breeding	C, O	A, B
Glen Affric to Strathconon SPA	Golden eagle, breeding, resident	C, O	A, B, I
Novar SPA	Capercailie, breeding, resident	C,O	A, B, I
Inner Moray Firth SPA/Ramsar	Osprey, breeding	C, O	A, B, I
	Greylag goose, migratory	C, O	A, B, I
Strath Carnaig and Strath Fleet Moors SPA	Hen harrier, breeding	C, O	A, B, D, I
Berriedale and Langwell Waters SAC	Atlantic salmon	C	I
Caithness and Sutherland Peatlands SAC	Peatland and associated habitats	C, O	D, I
	Otter, resident breeder	C	A, D, I
	Marsh saxifrage	C, O	A, D
Mound Alderwoods SAC	Alder and ash woodlands	C, O	I
River Oykel SAC	Freshwater pearl mussel	C	I
	Atlantic salmon	C	I
Caithness & Sutherland Peatlands Ramsar (non-bird features)	Nationally scarce *Sphagnum majus*	C, O	A, D, I
	Nationally scarce bog orchid	C, O	A, D, I
Dornoch Firth and Loch Fleet Ramsar (non bird features)	Alder and ash woodlands	C, O	I
	Otter	C	I

6.4.2 This **Stage 1 Screening** has identified 18 European sites (SACs, SPAs and Ramsar sites) where the potential for LSEs cannot be excluded at this stage for one or more qualifying interest features (as listed in **Table 6-4**). The next stage of the HRA process – **Stage 2 Appropriate Assessment** – aims to determine whether the integrity of the European sites will be adversely affected by the Proposed Development. Individual Reports to Inform Appropriate Assessment (RIAAs) have been produced for each of the European sites listed above.

APPENDIX A EUROPEAN AND RAMSAR SITES



Alignment Section
- Section A
- Section B
- Ramsar
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)

0 1 2 3 4 5
Kilometers

N

SCALE: See Scale Bar	VERSION: A02
SIZE: A3	DRAWN: WB
PROJECT: 0720281	CHECKED: PW
DATE: 30/06/2025	APPROVED: KG

Spittal - Loch Buidhe - Beauly 400kV Connection
Figure 2
HRA Constraints: Section A

ERM

Scottish & Southern Electricity Networks TRANSMISSION

PROJECTION: British National Grid

Path: \\uksprdgisfs01\Data\London\Projects\0652629 - SSE Beauly to Loch Buidhe\Maps\Restored\0720281 - SLBB - Ad-hoc Map Requests.aprx\0720281 - SLBB - HRA - Constraints - A02

Caithness and Sutherland Peatlands

Lairg and Strath Brora Lochs

Lairg and Strath Brora Lochs

Strath Carnaig and Strath Fleet Moors

Strath Carnaig and Strath Fleet Moors

Mound Alderwoods

Dornoch Firth and Loch Fleet

Moray Firth

River Evelix

Alignment Section

- Section A
- Section B
- Section C
- Ramsar
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)

0 1 2
Kilometers

N

SCALE: See Scale Bar	VERSION: A02
SIZE: A3	DRAWN: WB
PROJECT: 0720281	CHECKED: PW
DATE: 30/06/2025	APPROVED: KG

Spittal - Loch Buidhe - Beauly 400kV Connection
Figure 2
HRA Constraints: Section B

ERM

Scottish & Southern Electricity Networks TRANSMISSION

PROJECTION: British National Grid

Path: \\uksprdgisfs01\Data\London\Projects\0652629 - SSE Beauly to Loch Buidhe\Maps\Restored\0720281 - SLBB - Ad-hoc Map Requests.aprx\0720281 - SLBB - HRA - Constraints - A02