APPENDIX 7.7 – SHADOW HABITATS REGULATIONS APPRAISAL

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ACRONYMS AND ABBREVIATIONS

Acronym	Abbreviation
AA	Appropriate Assessment
AOD	Above Ordnance Datum
BBS	Breeding Bird Survey
CA	Competent Authority
CO	Conservation Objective
EcIA	Ecological Impact Assessment
ECU	Energy Consents Unit
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
FWPM	Freshwater pearl mussel
GWDTE	Ground Water Dependent Terrestrial Ecosystems
HRA	Habitats Regulations Appraisal
IROPI	Imperative Reasons of Overriding Public Interest
JNCC	Joint Nature Conservation Committee
LDP	Local Development Plan
LSE	Likely Significant Effect
LoD	Limit of Deviation
NPF4	National Planning Framework 4
NVC	National Vegetation Classification
OC	Operational Corridor
OHL	Overhead Line
SAC	Special Area of Conservation
sHRA	Shadow Habitats Regulations Appraisal
SIAA	Statement to Inform the Appropriate Assessment

SPA	Special Protection Area
SSEN Transmission	Scottish and Southern Electricity Networks Transmission
UGC	Underground cable
VP	Vantage Point

1. INTRODUCTION

1.1 Background

1.1.1 This Shadow Habitats Regulations Appraisal (sHRA) Report has been prepared by ITPEnergised (now part of SLR) on behalf of Scottish and Southern Electricity Networks Transmission (herein referred to interchangeably as 'SSEN Transmission' or the 'Applicant') and accompanies an application, submitted under Section 37 of the Electricity Act 1989, and Environmental Impact Assessment (EIA) for the construction and operation of a new 19.2 km overhead line (OHL).

1.1.2 The project, referred to as the "Glendye Wind Farm Overhead Line Grid Connection" (and hereafter also referred to as 'the Proposed Development'), is required to connect the consented Glendye Wind Farm[1i] to the electricity transmission network at Fetteresso substation. The Proposed Development is located within Aberdeenshire, at an approximate centre grid reference of British National Grid (BNG) NO 70297 81957 (refer to **Figure 7.7.1**).

1.1.3 This sHRA includes information for the Competent Authority (CA), the Energy Consents Unit (ECU), to determine if the Proposed Development is likely to have a significant effect on 'European' / Internationally important sites with regard to their conservation objectives and whether there will be an adverse effect on the integrity of any the sites or their qualifying features.

1.2 Project Overview

1.2.1 As detailed in **Chapter 3** of the EIA Report, the Proposed Development would comprise of approximately 19.2 km of new single circuit 132 kV overhead line (OHL), supported by steel trident poles. Ancillary works such as the installation of temporary and permanent access tracks, upgrades to existing access tracks, temporary working areas and tree / vegetation clearance would also be required. A Limit of Deviation (LoD) is included as part of the application for consent to define the maximum extent within which the Proposed Development could be built.

1.2.2 Two short sections of 132 kV underground cable (UGC) would also be required at either end of the OHL to facilitate connection to the Glendye Wind Farm on-site substation and Fetteresso substation.

1.3 Report Purpose

1.3.1 The purpose of this sHRA is to provide the information for the ECU to carry out a screening assessment for likely significant effects on European sites and, if applicable, an Appropriate Assessment (AA) of the Proposed Development, in accordance with and fulfilment of the requirements of the Conservation (Natural Habitats &c) Regulations, 1994, as amended.

1.4 Relevant Legislation and Policy

1.5 Legislation and Policy

1.5.1 The requirement for AA screening and AA is set out in the Conservation (Natural Habitats &c) Regulations, 1994[2], as amended. This requirement is extended as a matter of policy to Ramsar sites.

1.5.2 Policy 4 of the National Planning Framework 4 (NPF4)[3] reiterates the legal requirement for AA. Policy 4(b) states that:

1 Received consent from the Scottish Government in October 2023 (ECU Reference: ECU00000676). Available at: https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00000676 (last accessed 25/06/2025)

2 UK Government. (2024). Habitats Regulations Appraisal (HRA). [online] Available at: https://www.gov.scot/policies/environmental-assessment/habitats-regulations-appraisal-hra/ (last accessed 25/06/2025)

3 National Planning Framework 4 (online) available at: https://www.gov.scot/publications/national-planning-framework-4/ (last accessed 17/09/2025)

"Development proposals that are likely to have a significant effect on an existing or proposed European sites (Special Area of Conservation or Special Protection Areas) and are not directly connected with or necessary to their conservation management are required to be subject to an "appropriate assessment" of the implications for the conservation objectives."

1.6 Amendments Post EU Exit

1.6.1 Post-Brexit, the Habitats Regulations, S36 Habitats Regulations, and the Offshore Habitats Regulations[2] remain in force, with the same protections retained, but UK sites are no longer part of the EU's Natura 2000 network, instead forming a national network of protected sites. Key terminology is primarily unchanged, with the terms 'European site', 'European marine site', 'European offshore marine site', 'Special Area of Conservation (SAC)' and 'Special Protection Area (SPA)' all being retained.

1.6.2 In cases where an 'adverse effect on integrity' is concluded, the competent authority would previously have been required to seek the opinion of the European Commission on whether the plan or project should be carried out for 'imperative reasons of overriding public interest' (IROPI). Since exiting the European Union, this now falls under the remit of the Scottish Ministers, who must seek the opinion of the Secretary of State, the Joint Nature Conservation Committee (JNCC), and any other person the Scottish Ministers consider appropriate.

1.7 National and Local Planning Policy

1.7.1 The need for HRA is reiterated in national planning policy in Scotland (as noted above) and in the Aberdeenshire Local Development Plan[4]. The Local Development Plan (LDP) re-emphasises the requirement of the need for HRA in the planning process to prevent conservation objectives from being undermined. A Strategic Environmental Assessment (SEA) and HRA was undertaken for the LDP to ensure compliance with the Habitats Regulations.

Statement of Authority

1.7.2 This assessment has been carried out by Rowan Smith, BSc (Hons) MSc. Rowan has over 6 years' experience in ecology, in both ecological consultancy and research sectors. She has a broad environmental science background and expertise in terrestrial and aquatic ecology. Her experience includes undertaking and contributing to EIA/EcIA and HRA assessments for a range of energy generation projects including pumped storage hydro schemes, windfarms, solar and linear infrastructure projects.

1.7.3 The review has been undertaken by Michael Austin. Michael has over 30 years' experience in ecology, specialising in ornithology working in both conservation and more recently consultancy. Michael is a leading ornithology team member in Scotland for SLR with technical expertise in a wide range of onshore survey techniques - in lowland, upland and inter-tidal environments. He undertakes technical reporting and assessment, including Collision Risk Modelling, Ecological Impact Assessment and Habitats Regulations Assessment screening. He holds a Schedule 1 licence for survey work in Scotland, under which other SLR surveyors working in Scotland act as agents.

[4] Aberdeenshire Council. (2023). Aberdeenshire Local Development Plan. [Online] Available at: https://online.aberdeenshire.gov.uk/ldpmedia/LDP2021/AberdeenshireLocalDevelopmentPlan2023IntroductionAndPolicies.pdf (last accessed 17/09/2025)

2. METHODOLOGY

2.1 General Approach

2.1.1 NatureScot guidance[19] and EC Guidance[5,6] describes a series of stages and steps which should be completed when carrying out the assessment and these are followed here with the addition of sub-headings for further clarity. The assessment applies only to European and Ramsar sites. More specifically, it only applies to the qualifying interest features of such sites i.e., the features which are the reason that the site was designated.

2.2 Initial Search Area & Source-Pathway-Receptor Model

2.2.1 All European sites within 10 km of the Proposed Development for terrestrial ecological receptors, and 20 km for ornithological receptors were identified in the first instance. Regarding the Project alone and in-combination, the search area for developments in relation to International / European sites discussed in this sHRA related to the specific features of the designated sites and pathways of effect; for example, yet not limited to, the home ranges of the relevant species.

2.2.2 **Table 8.1** provides more detail per site and receptor. This influenced the full site search area in tune with the 'source-pathway-receptor' model.

2.2.3 The relevant European designated sites and their primary and secondary designated features are considered to be the 'receptors' in this model. The 'pathway' is the route or means through which the 'receptors' could be positively or negatively impacted by the 'source.' The 'source' is the Proposed Development (Glendye OHL). If no pathway exists between the receptor and the source, then impacts on the receptor can be screened out. If a pathway does exist, then the impact on the receptor site must be quantified and it must be determined whether a likely significant effect (LSE) will occur on the receptor.

2.3 Baseline Information

Ecological Desk Study

2.3.1 An ecological desk study was undertaken, comprising a search for:

- European and Ramsar sites within 10 km of the Proposed Development (terrestrial ecological receptors);
- European and Ramsar sites within 20 km of the Proposed Development (ornithological receptors);
- Annex I habitats and Annex II species (of the Habitats Directive) within 10 km of the Proposed Development; and
- Annex I bird species (of the Birds Directive) within 10 km of the Proposed Development.

2.3.2 These were only initial search areas; however, as understanding of the Proposed Development and its potential effects grew, the search area was extended beyond this distance to ensure that any European or Ramsar site—regardless of its location—that could be affected by the Proposed Development. Such effects could be caused by emissions to air or water, changes to hydrology, or by the use of the area by mobile or migratory species populations.

2.3.3 Online resources included ecology data held on NatureScot's Site Link[10], NatureScot's Carbon and Peatland Map[11] and Aberdeenshire Council planning portal[7] to obtain documents for nearby developments. Additional information and advice were sought through consultation (please refer to **Section 3**).

[5] EC. (2021). Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. (last accessed 17/09/2025)
[6] EC. (2018). Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. (last accessed 17/09/2025)
[7] Aberdeenshire Council: Aberdeenshire Planning Portal (online) available at: https://upa.aberdeenshire.gov.uk/online-applications/search.do?action=simple&searchType=Application (last accessed 17/09/2025)

Assessment Methodology

2.3.4 A sHRA is a phased approach typically combined of 'screening' (stages 1-3) and 'appropriate assessment' (stage 4), as outlined below. Further information is provided in Annex 1.

Stage 1: Project Description

2.3.5 Stage 1 is an outline description of the Proposed Development, including construction, operation and decommissioning, and potential impact pathways relevant to the habitats and species that form part of the qualifying interest of a European site.

Stage 2: Management of the European Site

2.3.6 Stage 2 is to ascertain whether the Project is directly connected with or necessary to the management of a European or Ramsar site. Typically, this applies only to a management plan, or parts thereof, which has the purpose of maintaining or restoring the conservation interest of a European or Ramsar site, and which would not have a negative effect on any other European or Ramsar site.

Stage 3: Likely Significant Effects

Step 1: Sources of Impact

- Step 1: identify the aspects of the Project which have the potential to affect European sites, either alone or in-combination with other projects and plans. This may include for example emissions to air and water, noise and increases in recreational activity ('Sources').

Step 2: European Sites

- Step 2: identify which (if any) European sites may be affected, considering the potential effects of the Project alone or in-combination with other plans or projects, which is subdivided into:
- Step 2, Part 1: generate an initial list of European sites to be considered in the screening process, which are those which are potentially connected (via a Pathway) to the Project Site including:
    1. any which overlap with the Project Site or are close enough to experience increased noise, vibration, light, visible human activity or invasive species;
    2. those that may have downstream connectivity via watercourses or groundwater to the Project Site or transport routes;
    3. those that may receive deposition of pollutants as a result of emissions to air from the Project or transport routes;
    4. those which may support migratory or mobile species populations which may also use the Project Site or its environs; and
    5. those which may receive additional recreational activity once the Proposed Development is operational.
- Step 2, Part 2: compile basic information on the European sites identified in Part 1, including a list of qualifying interest features / special conservation interest (the Receptors), their conservation objectives if known (i.e. to maintain or restore), the distance and direction from the Proposed Development (including transport routes) and how it is or is not connected, using the Source-Pathway-Receptor model[37], to the Project Site (including transport routes). Likely significant effects can usually be immediately excluded for any European sites and any qualifying / special conservation interest features which clearly lack a pathway, or where it can be demonstrated there is a very weak pathway, such that any effects would not be appreciable, provided there is also no risk of in-combination effects.

Step 3: Assess Risks

- Step 3: assess whether LSE on all European sites can be ruled out, in view of their conservation objectives, which is sub-divided into:
- Step 3, Part 1: assessing LSE for the Project alone, determining whether there is a risk that the Project could undermine the conservation objectives for the qualifying interest features / special conservation interest for those European sites for which a pathway has been identified. This is a scientific determination which considers whether the maintain or restore objective of the European site applies and both potential for direct and indirect effects from the Proposed Development. If there is any uncertainty or if detailed investigation and/or mitigation measures are required, LSE are assumed.
- Step 3, Part 2: assessing LSE for the Project in-combination with other projects and plans. Along the same lines as Part 1, this considers whether the effects of the Project, if not capable of undermining the conservation objective(s) on their own, could do so cumulatively with other projects and plans. It also considers whether the risk of undermining conservation objective(s) is elevated when cumulative effects are considered.

Stage 3: Conclusion

- Conclusion: stating whether LSE arising from the Project, alone and in-combination with projects and plans, on European and Ramsar sites can be excluded, and if they cannot, which European sites and which qualifying interest features / special conservation interest are at risk from significant effects, and the relevant impact sources and pathways. If the latter, an Appropriate Assessment (AA) will be required. The conclusion will not consider any mitigation measures designed to avoid LSE on a European site.

Stage 4: Appropriate Assessment

Step 1: Information on the Project and on the European Sites

- Step 1, Part 1: information on the Project and the Project Site. Whilst the Project has been described in outline at Stage 1, a more detailed description is provided here at Stage 4 including construction / decommissioning methods, relevant details of the design and timescales, providing all the details needed by the competent authority to complete its AA.
- Step 1, Part 2: information on the European sites, provides further information on the European sites identified at Stage 1 for which LSE cannot be excluded, including a complete list of the qualifying interest features (if not already provided), further investigation into the conservation / feature condition and distribution of qualifying habitats and populations, a description of the site, including baseline conditions, and further information on the conservation objectives, including the any site specific advice, main threats and pressures.

Step 2: Implications for the European Sites

- Step 2: Assessing the implications of the Project in view of the European Site's conservation objectives, individually or in-combination with other plans or projects.

Step 2, Part 1: Assessment of the Project alone

- A scientific assessment of the potential effects of the Project on the qualifying interest features of the European and Ramsar Sites, based on the impact factors and pathways identified at Stage 3. For example, determining whether the effects could result in a population decline or the loss or degradation of a habitat (where the population and/or habitat forms the qualifying feature of the European Site). The effects are considered individually and cumulatively.

Step 2, Part 2: Assessment of the Project 'in-combination',

- This includes the confirmation of the projects and plans (from Stage 3) which could act in-combination with the Proposed Development, and could therefore collectively result in effects on the qualifying features of a European Site such as a population decline or the loss or degradation of a habitat, or add to such effects already identified for the Proposed Development alone. Those projects and plans included have been already completed, approved but not yet completed, or submitted for consent, and have LSEs on the same European Sites as the Proposed Development. All projects and plans are considered together (rather than pairwise) with the Proposed Development, and assessments already made at the plan level (especially the relevant LPA development plans) are used to inform the 'in-combination' assessment.

Step 2, Part 3: Implications for the Conservation Objectives

- If site-specific conservation and management advice has not been published it is assumed that the favourable condition of the qualifying feature is at or above the condition of the feature when the European Site was designated, and unfavourable condition is below that level. Therefore, the objective is to maintain or restore the qualifying feature to that condition. This applies to the area of a qualifying habitat and its quality, the population and distribution of a qualifying species, and the extent and quality of habitat for that species within the European Site. In addition, a qualifying species must not significantly disturbed within the European Site. The assessment also considers supporting populations of the same and other species and connected habitats.
- Following the assessment at Step 1, identifying whether effects which would undermine the conservation objectives can be excluded for the Project alone, or if not which conservation objective(s) could be undermined, the level or risk and to what degree. Then, following on from Step 2, considering whether the effects in-combination could undermine the conservation objectives, even where the Project does not do so alone, and whether these effects are more less likely to happen or be worsened / lessened when all plans and projects are considered together.
- Low level effects of short duration and from which habitats and species populations would quickly recover may be regarded as not undermining the conservation objectives.

Step 3: Identify Mitigation Measures.

- For any effect that could have an adverse effect on the integrity of a European Site, avoidance and mitigation measures are identified with the aim of removing the risk to the integrity of the identified European Sites, including in-combination effects with other projects and plans. Measures to compensate for adverse effects must not be considered at this Stage, and neither are actions designed to enhance biodiversity.

<u>Stage 5: Site Integrity</u>

- Ascertain the effects of the Project on the integrity of European Sites. Following on from Step 2, and a detailed scientific investigation of the implications of the Project on the conservation objectives, it is determined that where a conservation objective could be undermined, there would be an effect on (European) site integrity and vice versa, which is based on the published conservation objectives where these exist, or an assumed objective as set above.
- Conclusion: Taking into account the mitigation identified at Stage 4, determining whether the risk from the Proposed Development to the conservation objectives of the European Site have been reduced or removed such that they will not be undermined, and adverse effects on the integrity of all European sites can be excluded.

3. CONSULTATION

3.1.1 In November 2024 an EIA Scoping Report was submitted to the Scottish Government's Energy Consents Unit (ECU) to accompany a request for the Scottish Minsters to adopt an EIA Scoping Opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017[8] (as amended). The relevant consultation responses to this sHRA are summarised below in **Table 3-1.**

Table 3-1 Consultation Responses

Consultee	Key Consultee Comments
NatureScot (15/01/2025)	Due to the proximity of the underground cable (UGC) section and the majority of the western overhead line (OHL) to the River Dee catchment and SAC, measures will need to be taken, particularly in respect to handling peat soils, to ensure that no pollution of local watercourses could result in SAC species and their supporting habitats being adversely impacted downstream. The Applicant will provide information to inform a Habitats Regulations Appraisal (HRA).
	Scoping Response: "*We consider that the approach to gathering the baseline information and range of surveys undertaken is appropriate to inform the Applicant's Environmental Impact Assessment…*" In addition, the scoping response states; "*We agree the Applicant's decision on issues to scope out*." Specifically, with reference to protected species and birds in the wider countryside, the NatureScot response continues; "*There is potential for the UCG/OHL to be within core range (6 km) of breeding raptors (golden eagle). The Scoping Report does not suggest golden eagle have been noted in surveys to date. The Applicant should seek the most up to date records that the RSPB and the North East Raptor Study Group hold*." Impacts of golden eagle outwith European sites have not been considered within this sHRA and are considered in full within **Chapter 8: Ornithology** of this EIA Report.
Dee district salmon fishery board (DSFB) (22/01/2025)	The DSFB strongly disagree that drainage impact assessment; water quality monitoring; cumulative impacts and increased flood risk caused by the operation and maintenance of the proposed development should be scoped out as these have the potential to significantly impact salmonid populations within the area. Consideration should be given to other indicator species such as aquatic invertebrate communities. Baseline surveys of these species could support water quality monitoring. The DSFB are of the opinion that it cannot be assumed that the development will not impact endangered Atlantic salmon and other environmental features within the river Dee and tributaries and seek further consultation with the developer throughout the development. There is the potential for sediment and other pollution to enter the River Dee and surrounding watercourses as a result of the construction phase of the development. Strict adherence to SEPA's pollution prevention guidelines is required and CIRIA guidance on "The control of water pollution from construction sites (SP156)" should also be followed. Sediment and pollution control measures should always remain effective during and post construction and these must be checked and maintained on a regular basis. The construction phase of the proposed development has the potential to both directly and indirectly affect fish and aquatic invertebrates by causing damage to feeding and respiratory apparatus as a result of increased sediment loads; habitat loss; obstructing fish migration and transmission of pathogens and non-native species.

[8] Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended) (online) available at: https://www.legislation.gov.uk/ssi/2017/101/contents (last accessed 17/09/2025)

Consultee	Key Consultee Comments
	Where possible, water crossings should be designed so that they do not impact the bed and banks of the watercourse and CIRIA guidance on "Culvert design and operation (C689)" should be followed. Temporary watercourse diversions and instream works within the Dee DSFB catchment, including Cowie and Carron waters, should be consulted on with the Dee DSFB in advance. Appropriate consideration should be given to the design and construction of access tracks, borrow pits, hard standing and Site drainage to minimise impacts on watercourses and it is expected that Scottish Natural Heritage best practice guidelines on "Constructed Tracks in the Scottish Uplands" (2013) are followed. The Dee DSFB suggests that an Ecological Clerk of works (ECoW) should be present during the development. Furthermore, the Dee DFSB wish to be provided with further information on the proposed biosecurity measures to assess the risk of pathogens and non-native species between the River Dee and other catchments.
Energy Consents Unit (ECU) (28/02/2025)	The ECU advises that Special Areas of Conservation (SACs) where fish are a qualifying feature are identified and considered along with felling operations, particularly in acid- sensitive areas. Scoping guidelines provided by Marine Directorate -Science Evidence Data and Digital (MD-SEDD) for overhead line development should be followed to ensure that all necessary information is included within the EIA report.
	In their scoping response ECU states: "*It is recommended by the Scottish Ministers that decisions on bird surveys – species, methodology, vantage points, viewsheds & duration - site specific & cumulative – should be made following discussion between the Company and NatureScot. It is also recommended the most up to date records should be sought from RSPB and the North East Raptor Study Group.* *Scottish Ministers recommend attention be given to the further confidential response and advice issued by RSPB on 7 February 2025 for the requirement of species protection.* *It is recommended by the Scottish Minsters that attention should be given to the advice provided by Aberdeenshire Council regarding protected and priority species*."
RSPB Scotland	Golden Eagle: "*In addition to the species found during the surveys listed in the scoping report, we are aware of a golden eagle territory in proximity to the proposed route. We do not agree that this species should be scoped out as it was not recorded during the surveys. We recommend that an assessment should be carried out on the impacts on golden eagle and include the potential displacement and disturbance impacts as well as an assessment of the potential risk of collision and electrocution due to the proposed overhead line*. Golden eagle outwith European sites are considered fully within **Chapter 8: Ornithology**. Other Species: "We recommend that Forest and Land Scotland are contacted for any relevant data that they may hold on Schedule 1 or Annex 1 species in the forested area. Baseline and survey data collected as part of the Hurlie 400 kV Substation Environmental Assessment should also be considered."

4. SOURCES OF INFORMATION

4.1.1 This Section is to guide the CA to the sources of information it needs to complete its AA.

4.2 For the Proposed Development Alone

Desk Study

4.2.1 Information for the Site was gathered through a desk-based study which was undertaken by SLR Consulting Ltd. in February 2025. The desk-based study considered previous data, reports and survey work which was collated into an Ecology Desk Study Report (see **Appendix 7.1**). Data sources for the desk-based study are provided below:

- The MAGIC tool online GIS tool[9] to obtain information on designated sites in the area surrounding the Site;
- NatureScot Site link[10] for information on statutory designated sites and their qualifying interests;
- NatureScot Carbon and Peatland Map[11] to identify the presence of carbon-rich soils, deep peat and priority habitat;
- Aberdeenshire Council Planning Portal[7] to obtain any documents for developments within 10 km of the Proposed Development; and
- Environmental Impact Assessment (EIA) reports submitted as part of planning applications and any post consent/construction information for wind farms and other developments within 10 km of the Proposed Development (where available) were reviewed;
- SEPA Water Classification Hub[12];
- Scotland Environment Web[13]; and
- NatureScot guidance on connectivity to SPAs[14].

Surveys and Assessments

4.2.2 The following reports have been referred to in this assessment:

- Glendye Wind Farm Overhead Line Farm Grid Connection: EIA Report Volume 1: Chapter 7: Ecology ;
- Glendye Wind Farm Overhead Line Farm Grid Connection: EIA Report Volume 4 Technical Appendix 7.1 – Ecology Desk Study;
- Glendye Wind Farm Overhead Line Farm Grid Connection: EIA Report Volume 4 Technical Appendix 7.2 - UKHab and NVC Classification Survey Report;
- Glendye Wind Farm Overhead Line Farm Grid Connection: EIA Report Volume 4 Technical Appendix 7.5 - Protected Species Survey;
- Glendye Wind Farm Overhead Line Farm Grid Connection: EIA Report Volume 1 EIA Chapter 8: Ornithology;
- Glendye Wind Farm Overhead Line Farm Grid Connection: EIA Report Volume 4 Technical Appendix 8.1 – Ornithology Baseline Report; and
- Glendye Wind Farm Overhead Line Farm Grid Connection: EIA Report Volume 1 Chapter 3: The Proposed Development.

[9] DEFRA. (2025). Magic Maps. [Online] Available at: https://magic.defra.gov.uk/ (last accessed 09/10/2025)
[10] NatureScot. (2025). SiteLink. [Online] Available at: https://sitelink.nature.scot/ (last accessed 09/10/2025)
[11] NatureScot. (2016). Carbon and Peatland 2016 Map. [Online] Available at: https://opendata.nature.scot/ (last accessed 09/10/2025)
[12] SEPA. (2025). Water Classification Hub. [Online] Available at: https://informatics.sepa.org.uk/WaterClassificationHub/ (last accessed 09/10/2025)
[13] Scotland's Environment Web. (2025). Map: Obstacles to Fish Migration. [Online] Available at: https://map.environment.gov.scot/sewebmap/ (last accessed 09/10/2025)
[14] NatureScot. (2016). Assessing Connectivity with Special Protection Areas (SPAs). (last accessed 09/10/2025)

4.2.3 This does not provide an exhaustive list of reports compiled to support the EIA, but includes those relevant to the HRA only.

Case Law

4.2.4 The relevant legislation is the Conservation (Natural Habitats, &c.) Regulations 1994[15], as amended in Scotland. Regulation 48[15] sets out the steps for assessing plans and projects which may affect European sites (in the National Network). Although this legislation derives from the EC Habitats Directive[16], the Regulations still apply in Scotland following the UK's exit from the EU. The Regulations have been subject to further minor technical amendments to deal with the UK's exit from the EU however the process for assessment remains largely unaltered. Case law made prior to the UK exit from the EU also still applies and is relevant here. This includes the People over Wind Judgement[20] which made clear that mitigation measures cannot be considered at screening stage (Stage 1) and therefore any project requiring mitigation to avoid significant effects, or to make certain that there are no such effects, needs to be assessed under Stage 2 Appropriate Assessment.

4.2.5 Where reserved matters (within the meaning of Schedule 5 of the Scotland Act 1998[17]) are concerned, certain provisions of the Conservations of Habitats and Species Regulations 2017[18] apply instead. Both sets of regulations require an equivalent process in relation to the assessment of plans and projects with the potential to affect European sites.

4.2.6 The need for HRA is re-iterated in national and local planning policies in Scotland. In terms of national policy, Policy 4(b) of the National Planning Framework 4 (NPF4)[3], adopted in February 2023, states: "Development proposals that are likely to have a significant effect on an existing or proposed European site (Special Area of Conservation or Special Protection Area) and are not directly connected with or necessary to their conservation management are required to be subject to an "appropriate assessment" of the implications for the conservation objectives. In terms of local policy, the need for HRA is stated in, e.g., Policy E1: Natural Heritage of the Aberdeenshire Local Development Plan (2023).

Guidance Documents

4.2.7 Screening, which includes Steps 1 to 3 (as outlined in Section 2.4: Assessment Methodology), makes reference to key HRA guidance documents, including:

- Scottish Government 'Habitats Regulations Appraisal (HRA)'[2];
- NatureScot 'Habitats Regulations Appraisal'[19];
- UK Government 'Guidance on the use of the Habitats Regulations Assessment'[20];
- NatureScot 'Guidance for Competent Authorities when dealing with proposals affecting the SAC freshwater sites'[21];
- NatureScot 'Assessing Connectivity with Special Protection Areas (SPAs) [14]; and

[15] The Conservation (Natural Habitats, &c.) Regulations 1994 (online) available at: https://www.legislation.gov.uk/uksi/1994/2716/contents (last accessed 17/09/2025)
[16] European Commission: Habitats Directive: Council Directive 92/43/EEC (1992) (online) available at: https://eur-lex.europa.eu/eli/dir/1992/43/oj/eng [last accessed (17/09/2025)
[17] UK Government: Scotland Act 1998: Schedule 5 (online) available at: https://www.legislation.gov.uk/ukpga/1998/46/schedule/5 (last accessed 17/09/2025)
[18] Conservation of Habitats and Species Regulations (2017) (online) available at: https://www.legislation.gov.uk/uksi/2017/1012/contents (last accessed 17/09/2025)
[19] NatureScot. (2024). Habitats Regulations Appraisal (HRA). [online] Available at: https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra (last accessed 09/10/2025)
[20] UK Government. (2019). Guidance on the use of Habitats Regulations Assessment. [online] Available at: https://www.gov.uk/guidance/appropriate-assessment (last accessed 09/10/2025)
[21] NatureScot. (2006). Guidance for Competent Authorities when dealing with proposals affecting SAC freshwater sites. (last accessed 09/10/2025)

- NatureScot 'Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds'[22]

4.3 In-Combination Effects

4.3.1 The assessment of potential 'in-combination' effects on the International / 'European' sites/ and their qualifying features has been informed by a review of available information on consented and proposed developments in the region.

4.3.2 This data was accessed via the Aberdeenshire Council Planning Portal, the Energy Consent Unit (ECU) portal and relevant project websites. The portals were searched for other relevant development applications within the area. A list of projects identified with potential for in-combination effects is provided below in **Table 4.1**.

Table 4-1 Developments Considered for In-combination Effects

Development	Details of Development	Application Status	Distance (km) and orientation to Proposed Development	Specification
Glendye Wind Farm and ancillary infrastructure	26 turbines, 108 MW Wind Farm	Consented	1.9 km W (Wind Farm) 0 km WSW (Access track) 0.075 WSW (Substation)	Wind farm development of 26 wind turbines with a generating capacity of 108 MW, located on the Glen Dye and Fasque Estates with associated access track and 132 kV substation upgrades. Section 36 application consented in October 2023.
Glendye UGC (Permitted Development Works)	132 kV underground cable	Pre-Application	0 km	Additional infrastructure comprised of two sections of 132 kV underground cable (UGC) at either end of the Glendye OHL to facilitate connection to the Glendye WF on-site substation and Fetteresso substation.

[22] NatureScot. (2025). Guidance – Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds. [Online] Available at: https://www.nature.scot/doc/guidance-assessment-and-mitigation-impacts-power-lines-and-guyed-meteorological-masts-birds (last accessed 09/10/2025)

Fetteresso Wind Farm and ancillary infrastructure	25 MW Wind Farm and 132 kV OHL connection	Consented	0.96 km NE (Wind Farm) 0 km ENE (Grid Connection/ Access Corridor)	Wind farm development consisting of 10 turbines with a maximum blade tip of 200 m as an extension to the existing Mid Hill wind farm, located approximately 13 km west of Stonehaven. Section 36 application consented in September 2022.
Hurlie Offshore Wind Farm / onshore connection	Potential Area for offshore connections	Application	1.41 km ENE	Construction and operation of new 400 kV substation in Fetteresso Forest. Town and Country Planning application submitted to Aberdeenshire Council in December 2024. Potential area for offshore Wind Farm connections.
Hurlie 400 kV Substation, Fetteresso Forest	400 kV substation	Application	0 km ENE	
Quithel Battery Energy Storage System (BESS)	BESS	Pre-Application	0 km ENE	BESS development located South of Fetteresso Forest. Screening request submitted to the ECU in December 2023.
Kintore to Tealing 400 kV OHL	106 km 400 kV OHL	Pre-Application	0.82 km SW	Approximately 106 km of 400 kV OHL, supported by steel lattice towers between a proposed new substation at Emmock, near Tealing in Angus and the existing substation situated at Kintore, via the proposed Hurlie

				substation. Section 37 application anticipated in 2025.
Bowdun Offshore Wind Farm Onshore Cable Connection and substation	Underground cable and substation	Pre-Application	1.56 km ENE	Onshore connection infrastructure in the form of an underground cable and substation infrastructure.
Craig Neil Wind Farm Redesign	42 MW Wind Farm	Consented	0.12 km W	A Wind Farm comprising of 11 turbines at 135 m currently undergoing redesign for seven turbines at 180 m in height with an installed capacity of 42 MW.
The Waters (Glenbervie) BESS	50 MW BESS	Application	<1 km S	BESS site with 50 MW capacity.
Hydroglen	Green hydrogen production facility	Consented	0.9 km S	Green hydrogen powered farming community pilot project.
'Other SSEN Transmission Land' Including Fiddes 132 kV Grid Replacement	Unknown	Unknown	Overlaps with Proposed Development	No details

4.3.3 The Applicant is not aware of any other operational or proposed developments, or other industrial developments, in the vicinity of the Proposed Development at this time.

5. BASELINE INFORMATION

5.1 Habitat Surveys

Habitat Survey Methodology

5.1.1 A National Vegetation Classification (NVC) survey (Technical Appendix 7.2) was conducted of the Proposed Development and a 250 m buffer where accessible, in combination referred to as 'the Survey Area'. Surveys were conducted to account for the potential presence of habitats listed on Annex I of the Habitats Directive, habitats which may support Annex II species of the Habitats Directive and habitats which may support Annex I species of the Birds Directive, along with survey for the identification of potential groundwater dependent terrestrial ecosystems (GWDTE).

5.1.2 The NVC survey followed the methodology described in the NVC Users Handbook[23]. Plant communities were identified from representative quadrat samples and identified with reference to the standard community descriptions and constancy tables in Rodwell *et al.*[24]. The survey excluded highly modified habitats, such as conifer plantations and agricultural areas, which are mapped using the UK Habitat Classification[25]. A full methodology is provided in the NVC Report.

Habitat Results

5.1.3 An NVC survey was conducted within the Survey Area, incorporating a 250 m buffer around Proposed Development infrastructure, with the exception of access tracks that included a 100 m buffer. These buffers are informed by SEPA[26] guidance which requests consideration of wetland habitats within 100 m radius of all excavations less than 1 m in depth and within 250 m of all excavations deeper than 1 m.

5.1.4 The Survey Area is dominated by blanket bog and conifer plantation, with smaller areas of dry heath and acid grassland, and acid and neutral flushes. In the centre and east of the Survey Area were large areas of coniferous plantation and modified agricultural grassland, with smaller areas of semi-natural woodland, scrub, acid grassland and arable crops. A comprehensive list of habitats identified within the Survey Area, as NVC communities and UK Habitat (UKHab) Classifications, is provided below in **Table 5.1**. Full details of the survey results are provided within **Appendix 7.2** of this EIA Report.

Table 5-1 Summary of UKHab / NVC Survey Results

UK Habitat Classification	NVC Community	Conservation Status	Area/Length within Survey Area (ha/km)
Grasslands			
g1 Acid grassland	N/A	LBAP	16.54 ha
g1b6 Other upland acid grassland	N/A	LBAP	17.18 ha
	U5 *Nardus stricta-Galium saxatile* grassland	LBAP	13.77 ha
	Je *Juncus effusus* community	LBAP	19.74 ha

[23] Rodwell. (2006). NVC Users' Handbook. [Online] Available at: NVC Users' Handbook | JNCC Resource Hub. (last accessed 09/10/2025)
[24] Rodwell et al. (1991). British Plant Communities. Volume 1. Woodlands and scrub. Cambridge University Press.
[25] UKHab: UK Habitat Classification V2.01 (online) available at: https://www.ukhab.org/ukhab-documentation/ (last accessed 17/09/2025)
[26] SEPA. (2024). Assessing the Impacts of Developments on Groundwater Dependent Terrestrial Ecosystems. [Online] Available at: guidance-on-assessing-the-impacts-of-developments-on-groundwater-dependent-terrestrial-ecosystems.docx (last accessed 09/10/2025)

UK Habitat Classification	NVC Community	Conservation Status	Area/Length within Survey Area (ha/km)
g1c Bracken	U20 *Pteridium aquilinum – Galium saxatile* community.	None	8.35 ha
g3c Other neutral grassland	N/A	LBAP	33.25 ha
g3c7 *Deschampsia* neutral grassland	MG9 *Holcus lanatus – Deschampsia cespitosa* grassland	LBAP	0.50 ha
g3c8 *Holcus-Juncus* neutral grassland	MG10 *Holcus lanatus - Juncus effusus* rush pasture	LBAP	13.97 ha
g4 Modified grassland	MG6 *Lolium perenne - Cynosurus cristatus* grassland	None	146.87 ha
	MG7 *Lolium perenne* leys and related grasslands	None	59.76 ha
Woodland			
w1 Broadleaf and mixed woodland	N/A	None	2.35 ha
w1g Other broadleaved woodland	N/A	LBAP	11.07 ha / 0.26 km
w1h6 Other woodland; mixed; mainly conifer	N/A	LBAP	0.48 ha
w2b Other Scot's Pine woodland	N/A	LBAP	7.90 ha
w2c Other coniferous woodland	N/A	LBAP	501.54 ha
Heathland / Scrub			
h1 Dwarf shrub heath	N/A	SBL, LBAP	17.43 ha
h1b Upland heathland	N/A	SBL, LBAP	9.09 ha
h1b5 Dry heaths; upland (H4030)	H10 *Calluna vulgaris – Erica cinerea* heath	Annex 1, SBL, LBAP	1.67 ha
h1b5 Dry heaths; upland (H4030)	H12 *Calluna vulgaris–Vaccinium myrtillus* heath	Annex 1, SBL, LBAP	106.04 ha
h2a6 Other native hedgerow	N/A	SBL, LBAP	0.5 km
h3e Gorse scrub	W23 *Ulex europaeus–Rubus fruticosus* scrub	LBAP	22.97 ha
h3h Mixed scrub	N/A	LBAP	3.84 ha

UK Habitat Classification	NVC Community	Conservation Status	Area/Length within Survey Area (ha/km)
Wetlands			
f1a Blanket bog	M2 *Sphagnum cuspidatum/ recurvum* bog pool community	SBL, LBAP	Too small to map
f1a Blanket bog	M19 *Calluna vulgaris – Eriophorum vaginatum* blanket mire	SBL, LBAP	416.12 ha
f1a Blanket bog	M20 *Eriophorum vaginatum* blanket and raised mire	SBL, LBAP	33.01 ha
f2 Fen, marsh and swamp	S9 *Carex rostrata* swamp	SBL, LBAP	Too small to map
	N/A	LBAP	2.35 ha
f2c Upland flushes, fens and swamps	M6 *Carex echinata – Sphagnum recurvum/auriculatum* mire	SBL, LBAP	42.66 ha
f2f Other wetlands	M23 *Juncus effusus/acutiflorus – Galium palustre* rush-pasture	LBAP	0.75 ha
Arable / Horticulture			
c1 Arable and horticulture	N/A	None	8.03 ha
c1c Cereal crops	N/A	None	33.42 ha
c1f Horticulture	N/A	None	2.40 ha
Urban			
u1 Built-up areas and gardens	N/A	None	0.2 ha
u1b Developed land; sealed surface	N/A	None	0.28 ha
u1b5 Buildings	N/A	None	0.10 ha
u1b6 Other developed land	N/A	None	4.60 ha
u1c Artificial unvegetated, unsealed surface	N/A	None	0.33 ha
u1d Suburban mosaic of developed and natural surface	N/A	LBAP	8.20 ha
u1e Built linear feature	N/A	None	30.6 km

UK Habitat Classification	NVC Community	Conservation Status	Area/Length within Survey Area (ha/km)
Hydrological			
r1 Standing open water and canals	N/A	LBAP	0.03 ha
r1a6 Other eutrophic standing waters	N/A	SBL, LBAP	0.46 ha
r2a Priority rivers and streams	N/A	SBL, LBAP	18 km
r2b Other rivers and streams	N/A	LBAP	12.3 km
Other			
Clearfell	N/A	None	46.96 ha
Area Total			**1620.98 ha**
Linear feature Total			**31.59 km**

5.2 Otter Surveys

Otter Survey Methodology

5.2.1 Otter surveys were undertaken in May, September and December 2024, and additionally in March 2025, including coverage of the riparian zones of all watercourses and waterbodies within the Proposed Development footprint and within a 250 m of the Proposed Development (where accessible), including up to 20 m inland (where habitat was suitable). The survey followed the methodology outlined in Chanin[27,28] (refer to **Confidential Appendix 7.4** of the EIA Report).

Otter Results

5.2.2 Otter signs were frequently recorded along several watercourses within the Survey Area, which included areas within the LoD and a 250 m buffer. Signs identified included spraints, resting locations and non-breeding holts. No breeding holts were identified during the Survey Area. Otter have large linear territories (40 km for male and 20 km for female[56]), as such absence of signs does not indicate lack of presence. For the purposes of this assessment, it is assumed that otter utilise all watercourses within the Survey Area.

5.3 Aquatic Surveys

Aquatic Survey Methodology

5.3.1 A desk study was undertaken to support this sHRA to identify watercourses classified by SEPA and barriers to salmonid migration on Scotland's Environment Web[29]. No field surveys were conducted solely in relation to aquatic ecological receptors or habitats; however riparian habitats and in-stream conditions were assessed and considered for protected species suitability as part of the Otter and Water Vole Survey (included in **Confidential Appendix 7.4** of the EIA Report).

[27] Chanin, P. (2003). Ecology of the European Otter. Conserving Natura 2000 Rivers, Ecology Series No. 10. English Nature, Peterborough
[28] Chanin, P. (2003). Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No 10. English Nature, Peterborough
[29] Scotland's Environment Web. (2025). Map. [Online] Available at: Map | Scotland's environment web (last accessed 09/10/2025)

Aquatic Results

5.3.2 The desk study identified a total of three watercourses that were classified or functionally connected to classified waterbodies, these are summarised below in **Table 5.2**.

Table 5-2 Aquatic Ecology Desk Study Summary

Watercourse	Classified	Proposed Development Connectivity to SAC	Downstream Obstacles to migration	Grid Reference
1	23911: Water of Dye / Water of Charr	Six watercourse crossings, one on the mainstem of the Water of Charr at NO 61514 80338 (subject to movement under the LoD) located at minimum approximately 3.1 km from the River Dee SAC. This crossing will be a fixed clear span bridge and the others a mixture of fixed bridges or culverts.	Impassable natural barrier (waterfall) (2.95 km from downstream extent of LoD)	NO 61597 82870
			Impassable natural barrier (waterfall) (1.00 km from downstream extent of LoD)	NO 61720 81279
2	Unclassified / feeds into 23912: Water of Dye / Spital Burn	Access track runs parallel to watercourse for 900 m approximately . 2.5 km upstream from the River Dee SAC.	Passable natural barrier (waterfall) (3.76 km from downstream extent of LoD)	NO 64639 83965
			Impassable natural barrier (waterfall) (3.25 km from downstream extent of LoD)	NO 64753 83601
3	23912: Water of Dye / Spital Burn	The OHL will cross the watercourse in four locations, three within the headwaters and one within the classified mainstem approximately 4.5km downstream of the River Dee SAC.	Passable natural barrier (waterfall) (3.95 km from downstream extent of LoD)	NO 65351 84499

5.3.3 Watercourses 2 and 3 are both subject to watercourse crossings within the headwaters. Although surface water data has mapped watercourses, aerial footage indicates minimal evidence of presence, as such watercourses are likely to resemble headwaters/areas of poor drainage as opposed to defined watercourses lacking suitability for any fish species. Given the altitude, the likely small nature of watercourses and steep gradient it is considered that fish species are likely limited to brown trout (*Salmo* trutta) and European eel (*Anguilla* Anguilla) with other migratory fish, such as Atlantic salmon (*Salmo salar*), unlikely to be present.

5.4 Ornithology Surveys

Ornithology Survey Methodologies

5.4.1 Diurnal vantage point (VP) surveys were conducted from October 2023 and covered a total of one full non-breeding season and one full breeding season (refer to **Appendix 8.1** of the EIA Report). During surveys information on bird flight activity was collected during timed watches using recommended guidance and

methods as outlined by NatureScot[30] (this guidance was since updated in March 2025[31], but was applicable at the time of survey).

5.4.2 A breeding bird survey (BBS) was undertaken over four visits between mid-April and July 2024. The survey followed a modified Brown and Shepherd[32] (1993) survey method of census and covered all habitats suitable for breeding birds, in addition to a 500 m buffer where practicable and accessible. Information was collated to determine evidence of breeding including displaying / singing, territorial dispute, repeated alarm calling / distraction displays, occupied nests, adults carrying food or nesting materials and newly fledged young with parent(s).

5.4.3 A breeding raptor survey was conducted in accordance with methods as described in Hardey *et al.*[33] over four-visit walkovers between April and August 2023 covering the Proposed Development (at the time of survey) and a 1 km buffer where practicable and accessible.

5.4.4 For full survey information dates and limitations refer to the ornithology baseline report (**Appendix 8.1** of the EIA Report)[34].

5.5 Ornithology Results

Diurnal Vantage Point Surveys

5.5.1 A total of ten target species were recorded from flight activity (VP) surveys including four Schedule 1 species of raptor (golden eagle, hen harrier (*Circus cyaneus*), peregrine (*Falco peregrinus*), and red kite (*Milvus milvus*)); four species of wader (curlew (*Numenius arquata*), golden plover (*Pluvialis apricaria*), oystercatcher (*Haematopus ostralegus*); and snipe (*Gallinago gallinago*)); and two species of goose (greylag goose (*Anser anser*) and pink-footed goose (*Anser brachyrhynchus*)).

Breeding Bird Surveys

5.5.2 The BBS Study Area covered all areas of suitable habitat within a 500 m buffer of the Proposed Development.

A total of two wader species were recorded as breeding in the BBS Study Area (golden plover; and snipe). Golden plover were the most frequently recorded species, with four established territories.

5.5.3 A total of five Birds of Conservation Concern (BoCC) Red listed species (cuckoo (*Cuculus canorus*), lesser redpoll (*Acanthis cabaret*), mistle thrush (Turdus viscivorus), skylark (Alauda arvenis) and whinchat (*Saxicola rubetra*)) and seven BoCC Amber listed species (meadow pipit (*Anthus pratensis*), reed bunting (*Emberiza schoeniclus*), song thrush (*Turdus philomelos*), wheatear (*Oenanthe oenanthe*), wren (Troglodytes troglodytes), willow warbler (*Phylloscopus trochilus*) and wood pigeon (*Columba palumbus*)) were recorded in the BBS Study Area. A further 14 common and widespread species (BoCC Green-list species) were recorded as breeding in the BBS Study Area.

Breeding Raptor Surveys

5.5.4 The Raptor Study Area covered all areas of the Proposed Development (at the time of survey) and a 1 km buffer, where access permissions allowed.

[30] Scottish Natural Heritage. (2017). Recommended Bird Survey Methods to inform Impact Assessment of Onshore Wind Farms. SNH Guidance Note Series. SNH, Battleby.
[31] NatureScot. (2025). Recommended bird survey methods to inform impact assessment of onshore windfarms. [Online] Available at: https://www.nature.scot/doc/recommended-bird-survey-methods-inform-impact-assessment-onshore-windfarms (last accessed 09/10/2025)
[32] Brown, A. F. and Shepherd, K. B. (1993). A method for censusing upland breeding waders, Bird Study, 40:3, 189-195.
[33] Hardey, J., Crick, H.Q.P., Wernham, C.V., Riley, H.T., Etheridge, B. and Thompson, D.B.A. (eds) (2013). Raptors: a field guide to survey and monitoring. 3rd edition. The Stationery Office, Edinburgh.
[34] SLR Consulting. (2025). EIAR Glendye OHL – Appendix 9.1 – Ornithology Technical Report.

5.5.5 The breeding raptor survey identified a total of four Schedule 1 species breeding within the Raptor Study Area. These included breeding attempts for golden eagle, merlin, peregrine and short-eared owl (*Asio flammeus*).

Seven Schedule 1 species (four of which are also Annex 1 listed) were recorded during the ornithological surveys completed between September 2023 and August 2024; golden eagle (*Aquila chrysaetos*), goshawk (A*ccipiter gentilis*), hen harrier (*Circus cyaneus*), merlin (*Falco columbarius*), osprey (*Pandion haliaetus*), peregrine (*Falco peregrinus*) and red kite (*Milvus milvus)*.

6. STAGE 1: PROJECT DESCRIPTION

6.1 The Project

Overview

6.1.1 The Proposed Development would comprise of approximately 19.2 km of new single circuit 132 kV overhead line (OHL), supported by steel trident poles. Two short sections of 132 kV underground cable (UGC) would also be required at either end of the OHL to facilitate connection to the Glendye Wind Farm on-site substation and Fetteresso substation. A wood pole terminal structure would facilitate the transition between OHL and UGC. New permanent and temporary access tracks would also be required to facilitate the construction and operation of the Proposed Development.

6.1.2 The Project Site is the area encompassed by the LoD. A description of the Project Site is provided in Section 6.3.

6.1.3 The Survey Area encompasses the LoD in addition to the relevant survey buffer, as described in Section 5, and varies with different species/survey types.

Associated Works

6.1.4 Other associated works are required to facilitate construction of the Proposed Development, or would occur as a consequence of its construction and operation. These works, listed below, do not form part of the description of the Proposed Development and are therefore not included in the application for statutory consents. On that basis they are therefore not assessed in detail in this sHRA. The associated works are:

- Borrow pits which would be required to source stone for the construction of access tracks. Separate planning applications for these works would be sought by the Principal Contractor; and
- Temporary construction compounds which would be required to facilitate construction of the Proposed Development. The final location and design of temporary site compounds would be confirmed by the Principal Contractor and separate planning permissions would be sought as required.

Limits of Deviation

6.1.5 The Limit of Deviation (LoD) is defined as the maximum extent within which a development can be built. There is a good degree of certainty with respect to the location of infrastructure, as presented within the EIAR, given the work that has been carried out by the Applicant during the routeing, alignment and EIA stages of the Proposed Development. Nevertheless, it is possible that further micro-siting may be required during the construction process to reflect localised land, engineering and environmental constraints, and therefore the LoD provides some flexibility in this regard.

6.1.6 The horizontal LoD for which consent is sought would be as follows:

- OHL – 100 m LoD (50 m either side of the centre line);
- Access Tracks (new permanent and new temporary) – 50 m LoD (25 m either side of the centre line of the proposed tracks) is sought for the construction of new permanent access tracks and new temporary access tracks where they are outwith the OHL LoD noted above. Where access tracks fall within the OHL LoD, the access track LoD would be merged with the OHL LoD. This is to account for the possible movement of the OHL within its respective LoD that the access would still need to serve.

Operational Corridor

6.1.7 An operational corridor (OC) is required through areas of woodland and commercial forestry to ensure the safe operation of the OHL and access tracks. The width of the OC would be variable depending on the nature of the woodland or forestry and the design of the steel trident pole proposed. In areas of productive conifer, the OC would typically require a distance of 36 m either side of the OHL and therefore an extension of 36 m to the OHL

LoD would be required for felling operations in areas of conifer plantation. Similarly, for new tracks (temporary and permanent) a 12.5 m wayleave corridor is required either side of the track. As such, a 12.5 m extension would be required around the new access track LoD in areas of conifer plantation for felling operations.

6.2 Construction Phase

Steel Trident H Pole Foundations

6.2.1 The foundations for steel trident H poles comprise an excavation of approximately 3 m long and 3 m wide for each pole. The total working area at each pole may extend to 20 m by 10 m to facilitate pole assembly / dressing and lifting into position. These excavations and working areas would also apply to the wood pole terminal structures at either end of the connection (where they would facilitate the transition between OHL and UGC). Excavated turf and sub soils would be stacked separately according to type so that they can be replaced in reverse order, with the turf being replaced on top. Some backfilling may require the addition of hardcore to provide additional stability in areas where the natural sub soils have poor compaction qualities.

6.2.2 Where shallow rock is encountered along the route, this would require a hydraulic breaker to break into the rock to a sufficient depth of around 2.0 - 2.5 m. Stays, where required, would be installed at the same time as a pole is erected, involving the placement of a wooden sleeper block beneath the surface at a depth of approximately 1 m. Foundation types and designs for each pole would be confirmed by the Contractor following analysis of detailed geotechnical investigation at each pole position.

Steel Trident H Pole Construction

6.2.3 Pole structures would be assembled completely, adjacent to the pole position. Assembled H poles would be erected utilising either one or two excavators, or a tracked all-terrain vehicle (ATV), depending on the complete H pole assembled weight. Stays would be installed at angle and terminal poles potentially on cross slopes for stability.

OHL Conductor Stringing

6.2.4 Prior to stringing the conductors, temporary protection measures (normally netted scaffolds) would be required across existing access tracks where necessary. Conductor stringing equipment (i.e. winches, tensioners and ancillary equipment) are set out at either end of pre-selected sections of the OHL.

Reinstatement

6.2.5 Following commissioning of the Proposed Development, it is anticipated that all areas disturbed during construction would be reinstated. Reinstatement will form part of the contract obligations for the Principal Contractor and will include the removal of all temporary access tracks, all work sites around the pole locations and the re-vegetation of laydown areas to recreate the original habitat as far as possible.

Construction Programme and Hours of Work

6.2.6 It is anticipated that construction of the project would take place over a 30-month period, following the granting of consents, although detailed programming of the works would be the responsibility of the Principal Contractor in agreement with SSEN Transmission.

6.2.7 Construction activities would in general be undertaken during daytime periods. Weekend working would also be proposed with timings to be confirmed by the Principal Contractor in due course. Construction working is likely to be during daytime periods only. Working hours are anticipated 7 days a week between approximately 07.00 to 19.00 March to September and 07.30 to 17.00 (or within daylight hours) October to February. Working hours would be confirmed by the Principal Contractor and agreed with Aberdeenshire Council as planning authority. As working hours would be during daytime periods only, any external lighting requirements during construction are anticipated to be minimal.

Operational Phase

6.2.8 The OHLs will require little maintenance with regular inspections undertaken to identify any unacceptable deterioration of components, so that they can be replaced. Occasionally 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.

6.2.9 During the operation of the Proposed Development, it may be necessary to manage vegetation within the operational corridor to maintain required safety clearance distances from infrastructure.

Decommissioning Phase

6.2.10 If the Proposed Development were to be decommissioned, all components of the OHL (inclusive of steel from the poles, conductors and fittings) would be removed and disposed of appropriately. The Proposed Development does not have a fixed life span, with consent applied for in perpetuity as it is expected that efforts would be made to repurpose the infrastructure for future connections prior to any decommissioning. For the purposes of this assessment it is assumed that decommissioning would incur equal or less impacts than the construction phase and so are assessed in tandem.

6.3 The Project Site

Habitats (Annex I) Summary

6.3.1 One Annex I habitat was identified within the Survey Area: 4030 European dry heaths. This covered a total area of 121.42 ha within the Survey Area.

Species (Annex I birds and Annex II others) Summary

6.3.2 A total of seven bird species listed on Annex I EU Birds Directive were recorded within the Survey Area including: golden eagle, goshawk, hen harrier, merlin, osprey, peregrine and red kite.

One Annex II species was recorded within the Survey Area: otter.

Ecological and Environmental Connections Summary

6.3.3 A screening parameter of 10 km has been applied to search for European Sites with hydrological connectivity, and 2 km for airborne transmission of air pollutants. An initial screening parameter of 20 km has been applied for ornithological features; however, features beyond 20 km where sufficient connectivity is established have also been included, these are assessed per species, and in line with known connectivity guidance[14]

6.3.4 Five European Sites are located within a 10 km distance of the Proposed Development or have sufficient connectivity to the Proposed Development to be considered for further assessment to identify potential for likely significant effects. These include:

- River Dee SAC;
- Fowlsheugh SPA;
- Cairngorms Massif SPA;
- Glen Tanar SPA; and
- Montrose Basin SPA and Ramsar.

6.3.5 A summary of European sites considered to have potential connectivity to the Proposed Development is provided below in **Table 6.1**.

Table 6-1 Summary of European Sites with Potential for Connectivity to the Proposed Development

European Statutory Designated Site	Distance from the Proposed Development	Description
River Dee SAC	2.1 km WNW	The River Dee SAC is a large river with uninterrupted flows for 130 km, flowing from the upland reaches of the Cairngorms to the North Sea. It supports one of the most robust and only functional freshwater pearl mussel (FWPM) populations, as well as a full range of life-history types of Atlantic salmon found in Scotland. Otter (*Lutra lutra*) are present throughout the catchment and serve an important role in connecting with other populations that would be likely unviable in isolation.
Fowlsheugh SPA	9.6 km E	Fowlsheugh SPA, located 4 km south of Stonehaven on the east coast of Aberdeenshire in north-east Scotland, is a 10.15 ha stretch of sheer cliffs, between 30 m and 60 m high, cut mostly from basalt and conglomerate rocks of Old Red Sandstone age. The SPA qualifies under Article 4.2 of the Birds Directive[35] by supporting in excess of 20,000 individual sea birds. The colony regularly supports 145,000 seabirds.
Cairngorms Massif SPA	12.0 km W	The Cairngorms Massif SPA is a large, upland site in the northeast Highlands. The boundary of the SPA incorporates the majority of the Cairngorm Massif and the higher hills and mountains stretching to the west and south to Perthshire; east to Grampian; and from upper Deeside north to Abernethy. The site rises from 270 m to over 1300 m and encompasses a diverse range of habitats including heather moorland/grouse moor, grassland, blanket bog, native woodland, freshwater lochs and lochans, extensive areas of montane heaths and exposed rock and scree.
Glen Tanar SPA	15.2 km WNW	Glen Tanar SPA is a large area of native pinewood with some heather moorland. The forest of Glen Tanar covers the slopes of Glen Tanar and tributary valleys, rising to a present tree line of about 450 m. It is the third-largest expanse of native pinewood in the UK. Qualifying species include, hen harrier, osprey, western capercaillie (T*etrao urogallus*) and scottish crossbill (L*oxia scotica*)
Montrose Basin SPA	18.7 km S	Montrose Basin SPA contains the enclosed estuary of the River South Esk on the east coast of Scotland, and Dun's Dish, a small eutrophic loch 4 km northwest of the Basin. It contains areas of mudflat, marsh and agricultural land and supports a diverse assemblage of wintering waterfowl of outstanding nature conservation and scientific importance. Qualifying species include greylag goose (*Anser anser*), pink footed goose (*Anser brachyrhynchus),* Eurasian oystercatcher (H*aematopus ostralegus*), red knot (C*alidris canutus*) and common redshank (*Tringa tetanus*).

[35] Birds Directive – 2009/147 – Article 4.2

7. STAGE 2: MANAGEMENT OF THE SITE

7.1.1 The Proposed Development is not wholly or partially connected with, or necessary for, the management of any statutory designated European Site and it does not contribute to achieving any European Site's conservation objectives. To ensure a thorough and robust assessment and in accordance with a precautionary approach, the European Sites identified above in **Table 6.1** which are located within the distance where potential for connectivity with the Proposed Development could occur, are given further consideration in relation to the potential for effects from the Proposed Development below.

8. STAGE 3: LIKELY SIGNIFICANT EFFECTS

8.1.1 No European Sites are located within the Proposed Development footprint or within a distance where potential for connectivity with the qualifying features could occur. Likely significant effects of the Proposed Development alone and in-combination with other developments/plans are outlined below in **Table 8.**1. For the purposes of this assessment, it has been determined that decommissioning phase effects will be less than, or equal to effects caused by the Proposed Development construction phase and have thus been considered together.

8.2 Step 1: Sources of Impact

8.2.1 Potential effects from the Proposed Development are listed below in relation to different phases over the Proposed Development lifetime (construction, operation, decommission), either alone or in-combination with other plans/projects. Section 8.3 below provides the assessment of risks relevant to statutory designated European Sites and identified specific sources of impact.

8.2.2 Construction and Decommissioning:

- Factor 1: Direct or indirect loss of habitat;
- Factor 2: Changes in surface water quality or hydrological regime;
- Factor 3: Disturbance of species due to construction (noise, light, vibration, construction vehicle and worker presence);
- Factor 4: Direct or indirect injury and/or mortality of species.
- Factor 5: Disturbance of prey species due to construction (noise, light, vibration, construction vehicle and worker presence);
- Factor 6: Direct or indirect injury and/or mortality of prey species;
- Factor 7: Spread of non-native invasive (plant) species; and
- Factor 8: Impact on host species availability (where relevant to the qualifying species).

8.2.3 Operation:

- Factor 1: Injury and/or mortality of birds through collision with lines;
- Factor 2: Electrocution of birds from perching and /or nesting; and
- Factor 3: Disturbance resulting from increased operational noise and maintenance activities

8.3 Step 2: European Sites

Step 2, Part 1: Generating an initial list of European Sites

8.3.1 Six European sites are located within 10 km (terrestrial and aquatic receptors) and 20 km (ornithological receptors) of the Proposed Development or have sufficient connectivity to the Proposed Development to be considered within the assessment. These include the following:

- River Dee SAC;
- Fowlsheugh SPA;
- Cairngorms Massif SPA;
- Glen Tanar SPA;
- Montrose Basin SPA; and
- Montrose Basin Ramsar.

Step 2, Part 2: Compile Basic Information on the European Sites Identified

8.3.2 Information on the six European Sites considered in the assessment is provided below in **Table 8-1.** The table details qualifying interests, conservation objectives, site condition, distance and orientation from the Proposed Development and any potential for connectivity to the Proposed Development.

Table 8-1 European Sites Initially Considered for Source - Pathway - Receptor links

European Site and EU Site Code	Qualifying Interest/ Condition/ Latest Assessed Condition and Conservation Objectives	Distance from Proposed Development[36]	Connections to the Proposed Development [37]	Considered further in screening Y/N and species considered
River Dee SAC UK0030251	Qualifying Features Freshwater pearl mussel (FWPM) (*Margaritifera margaritifera*) Unfavourable declining (Mar 2024) Atlantic salmon (*Salmo salar*) Favourable maintained (Mar 2015) Otter (*Lutra lutra*) Favourable declining (Mar 2015) Conservation Objectives 1. To ensure that the qualifying features of the River Dee SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status. 2. To ensure that the integrity of the River Dee SAC is restored by meeting objectives 2a, 2b, 2c for each qualifying feature (and 2d for freshwater pearl mussel). Freshwater pearl mussel 2a. Restore the population of freshwater pearl mussel as a viable component of the site. 2b. Restore the distribution of freshwater pearl mussel throughout the site.	2.1 km WNW	Several tributaries present within the Proposed Development application boundary flow directly into the SAC and have the potential to hold meta-populations of FWPM from the SAC. Connective tributaries between the Proposed Development and the SAC have a number of impassable barriers or are considered unsuitable for supporting salmonids; as such it is considered that Atlantic salmon are unlikely to be within the Proposed Development or a 2 km screening buffer for water and airborne pollutants. The SAC is out with the 2 km screening parameter for water or airborne pollutants. Otter in the River Dee maintain large linear habitats (40 km for male and 20 km for female)[51], as such otter from the SAC are likely to utilise watercourses within the Proposed Development[38].	**Yes** **FWPM** **Otter**

[36] Straight line Distance, 'as the crow flies'
[37] Source-Pathway-Receptor Model
[38] NatureScot. (2012). River Dee Special Area of Conservation (SAC) Conservation advice package. [Online] Available at: conservation-advice-package https://www.nature.scot/sites/default/files/special-area-conservation/8357/conservation-advice-package.pdf.pdf (last accessed 09/10/2025)

European Site and EU Site Code	Qualifying Interest/ Condition/ Latest Assessed Condition and Conservation Objectives	Distance from Proposed Development[36]	Connections to the Proposed Development [37]	Considered further in screening Y/N and species considered
	2c. Restore the habitats supporting the freshwater pearl mussel within the site and accessibility of species used for food. 2d. Maintain the distribution and viability of freshwater pearl mussel host species (salmonid fish species) and their supporting habitats. <u>Atlantic salmon/ otter</u> 2a. Maintain the population of Atlantic salmon / otter as a viable component of the site (including range of genetic types for Atlantic salmon). 2b. Maintain the distribution of Atlantic salmon / otter throughout the site. 2c. Maintain the habitats supporting Atlantic salmon / otter within the site and availability of food.			
Fowlsheugh SPA UK9002271	Qualifying Features: Fulmar (*Fulmarus gacialis*), breeding Unfavourable declining (Mar 2024) Guillemot (*Uria aalge*), breeding Favourable maintained (Mar 2024)	9.6 km E	Herring gull have been recorded travelling up to 85.6 km[39], (upper limit of the mean maximum) to forage in the offshore environment. Nesting herring gulls may forage in both inland and offshore habitats, with individual adults sometimes specialising in their foraging approach. In the absence of specific inland foraging range studies, it is assumed that foraging range estimates may include inland as well as offshore foraging trips and is therefore considered to have potential connectivity to the Proposed Development.	**Yes** **Herring gull**

[39] NatureScot. (2023). Guidance Note 3: Guidance to support Offshore Wind applications: Marine Birds - Identifying theoretical connectivity with breeding site Special Protection Areas using breeding season foraging ranges. [Online] Available at: https://www.nature.scot/doc/guidance-note-3-guidance-support-offshore-wind-applications-marine-birds-identifying-theoretical#4.+Recommended+foraging+ranges+used+to+assess+theoretical+connectivity (last accessed 09/10/2025)

European Site and EU Site Code	Qualifying Interest/ Condition/ Latest Assessed Condition and Conservation Objectives	Distance from Proposed Development[36]	Connections to the Proposed Development [37]	Considered further in screening Y/N and species considered
	Herring gull (*Larus argentatus*), breeding Unfavourable no change (Mar 2024) Kittiwake (*Rissa tridactyla*), breeding Unfavourable declining (Jul 2024) Razorbill (*Alca torda*), breeding Favourable maintained (Jul 2024) Seabird assemblage, breeding Favourable maintained (Jul 2024) (includes all qualifying features) <u>Conservation Objectives</u> 1. To ensure that the qualifying features of the Fowlsheugh SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status. 2. To ensure that the integrity of the Fowlsheugh SPA is restored in the context of environmental changes by meeting objectives 2a, 2b and 2c (for each qualifying feature): 2a. The populations of the qualifying features are viable components of the Fowlsheugh SPA. 2b. The distribution of the qualifying features is maintained, or where appropriate restored, throughout the site by avoiding significant disturbance of the species. 2c. The supporting habitats and processes relevant to qualifying features and their prey resources are maintained, or where appropriate restored at the Fowlsheugh SPA.		All other species are marine species which do not normally occur onshore are not considered to have connectivity.	

European Site and EU Site Code	Qualifying Interest/ Condition/ Latest Assessed Condition and Conservation Objectives	Distance from Proposed Development[36]	Connections to the Proposed Development [37]	Considered further in screening Y/N and species considered
Cairngorms Massif SPA UK9020308	Qualifying Features Golden eagle (*Aquila chrysaetos*), breeding Favourable maintained (Mar 2017) <u>Conservation Objectives</u> To ensure for the qualifying species that the following are maintained in the long term: • Population of the species as a viable component of the site; • Distribution of the species within site; • Distribution and extent of habitats supporting the species; • Structure, function and supporting processes of habitats supporting the species; and • No significant disturbance of the species.	12.0 km W	Golden eagles have core foraging ranges of 6 km, to a maximum range of up to 9 km[14] Distance between alternative sites is typically 3-6 km dependent on density. Non-breeding golden eagles associated with the SPA may travel further than this; however, breeding connectivity with the SPA is unlikely given the proximity to the SPA. It is therefore not considered to have connectivity to the Proposed Development.	**No**
Glen Tanar SPA UK9002771	<u>Qualifying Features</u> Capercaillie (*Tetrao urogallus*), breeding Unfavourable declining (Mar 2012) Hen harrier (*Circus cyaneus*), breeding Favourable maintained (May 2011) Osprey (*Pandion haliaetus*), breeding Favourable maintained (May 2011)	15.2 km WNW	Capercaillie distribution is closely linked to the presence of native pinewood, commercial conifer tree plantation and edge habitat[40]. There is no recorded suitable habitat between the Proposed Development and SPA that may constitute 'stepping stone' habitat for the species. Moreover, no evidence of capercaillie was identified during the breeding bird surveys, therefore they are not considered to have connectivity. Hen harrier have core ranges of 2 km and maximum ranges of 10 km, with a 1 km distance between alternative nest sites[14] and	**Yes** **Osprey**

[40] RSPB (online) available at: https://www.rspb.org.uk/birds-and-wildlife/capercaillie (last accessed 17/09/2025)

European Site and EU Site Code	Qualifying Interest/ Condition/ Latest Assessed Condition and Conservation Objectives	Distance from Proposed Development[36]	Connections to the Proposed Development [37]	Considered further in screening Y/N and species considered
	Scottish crossbill (*Loxia scotica*), breeding Favourable maintained (Mar 2016) Conservation Objectives To ensure for the qualifying species that the following are maintained in the long term: • Population of the species as a viable component of the site; • Distribution of the species within site; • Distribution and extent of habitats supporting the species; • Structure, function and supporting processes of habitats supporting the species; and No significant disturbance of the species.		therefore due to the distance from the Proposed Development are not considered to have connectivity. Hen harrier have been recorded within the Study Area; however, these are unlikely to be associated with the SPA considering they are 5 km out with maximum known ranges of 10 km. Osprey have core ranges of 10 km with foraging ranges up to 20 km (maximum recorded 28 km) and a 2 km range for alternative nest sites[14]. As such they are considered to have potential connectivity. Scottish crossbill are exclusively found in coniferous woodland, notably native Scots pine woodland. There is no recorded suitable habitat within the Study Area, or between the Proposed Development and SPA that may constitute stepping stone habitat for the species. Moreover, no evidence of Scottish crossbill was identified during the breeding bird surveys, as they are not considered to be present in the study area, they are therefore not considered to have connectivity.	
Montrose Basin SPA UK9004031 Montrose Basin Ramsar UK13046	Qualifying Features Dunlin* (*Calidris alpina alpina*), non-breeding Eider* (*Somateria mollissima*), non-breeding Greylag goose (*Anser anser*), non-breeding Knot* (*Calidris canutus*), non-breeding	18.7 km S	In the non-breeding season dunlin are primarily coastal species with a core range of 500 m and a maximum range of 3 km[14], as such they are not considered to have connectivity. Eider are seaducks, reliant on coastal shellfish for food sources, as such are rarely found out with coastal areas; therefore are not considered to have connectivity with the Proposed Development. Greylag goose have core foraging ranges of 15-20 km[14], as such they are considered to have potential connectivity.	**Yes** **Greylag goose** **Pink-footed goose**

European Site and EU Site Code	Qualifying Interest/ Condition/ Latest Assessed Condition and Conservation Objectives	Distance from Proposed Development[36]	Connections to the Proposed Development [37]	Considered further in screening Y/N and species considered
	Oystercatcher* (*Haematopus ostralegus*), non-breeding Pink-footed goose (*Anser brachyrhynchus*), non-breeding Redshank (*Tringa totanus*), non-breeding Shelduck* (*Tadorna tadorna*), non-breeding Wigeon* (*Anas penelope*), non-breeding Waterfowl assemblage, non-breeding (* indicates assemblage qualifier only) <u>Conservation Objectives</u> To ensure for the qualifying species that the following are maintained in the long term:		Knot are coastal and wetland specialists, and are limited in distribution to firths and intertidal zones. Considering upland habitats within the Study Area are unsuitable and the distance, c. 18 km, they are not considered to have connectivity to the Proposed Development. Oystercatcher are not considered to be long range species; therefore individuals identified within the Study Area are not considered to be connected to the SPA population. Whilst oystercatcher may move inland to breed, this is unlikely to extend >18 km inland, as such they are not considered to have connectivity. Pink-footed goose have core foraging ranges of 15-20 km[14], as such they are considered to have potential connectivity with the Proposed Development. Redshank may move inland during summer months with habitats including upland areas, wet grasslands, swampy heathlands. Recorded habitats within the Proposed Development footprint and immediate surrounding area do not widely support this habitat type, as such they are not considered to have connectivity to the Proposed Development. Shelduck are primarily coastal specialists residing in mud estuaries and sandy beaches. They may be found in small numbers on gravel pits and reservoirs; however, considering no suitable habitat is present within the Study Area, they are not considered to have connectivity with the Proposed Development.	

European Site and EU Site Code	Qualifying Interest/ Condition/ Latest Assessed Condition and Conservation Objectives	Distance from Proposed Development[36]	Connections to the Proposed Development [37]	Considered further in screening Y/N and species considered
	• Population of the species as a viable component of the site; • Distribution of the species within site; • Distribution and extent of habitats supporting the species; • Structure, function and supporting processes of habitats supporting the species; and • No significant disturbance of the species <u>Qualifying Features: Ramsar only</u> Intertidal mudflats and sandflats Saltmarsh Transition saltmarsh		Wigeon primarily congregate in coastal areas but may venture inland to areas of floodplain meadow and flooded gravel pits/reservoirs; however, considering no suitable habitat is present within the Study Area, they are not considered to have connectivity to the Proposed Development. Dunlin, eider, knot, redshank, shelduck and wigeon were not identified during any ornithology survey. All habitats designated under the Ramsar Site are coastal and/or transition habitats, given the distance between the Proposed Development and the Site. these are not considered to have connectivity.	

8.3.3 Following the initial assessment of the European Sites outlined in **Table 8.1** above, it is considered that the following European sites and qualifying features have connectivity to the Proposed Development and will require further consideration in the screening assessment:

- **River Dee SAC** – FWPM and otter;
- **Fowlsheugh SPA** – Herring gull;
- **Glen Tanar SPA** – Osprey; and
- **Montrose Basin SPA/Ramsar** – Greylag goose and pink-footed goose.

8.3.4 Cairngorms Massif SPA is considered to have no connectivity to the Proposed Development and has therefore not been considered further in the screening assessment.

STEP 3: ASSESS RISKS

8.4 Step 3, Part 1: For the Proposed Development Alone

River Dee SAC

Relevant Ecological Information

Freshwater pearl mussel

8.4.1 FWPM have a complex life cycle that in the initial larval (glochidial) stage requires the presence of a salmonid host species[60] (brown trout or Atlantic salmon), onto which they attach and remain on the gills for approximately nine months. Juvenile mussels then drop off and reside in gravel within rivers. A healthy population of salmonids is critical in allowing population growth and sustaining a juvenile population of mussels, thus these species must be protected at all life stages.

8.4.2 Populations of FWPM indicate host specificity in some river systems[41,42], showing preference to either brown trout or Atlantic salmon; however, the populations within the River Dee have not been researched therefore FWPM host preference within the Dee catchment is currently unknown. Given that impassable barriers are located upstream, on the three watercourses identified as having connectivity to the SAC (refer above to **Table 5-2**), it is considered that brown trout would likely be the only FWPM host species available in this section of the catchment. The Conservation Advice Package (CAP)[38] notes that FWPM presence can occur above naturally impassable waterfalls. Given direct hydrological connectivity between the Proposed Development and the SAC, it is considered that FWPM may be present in watercourses within the Proposed Development and would be considered part of the River Dee SAC meta-population.

Otter

8.4.3 Otter within the River Dee SAC have been identified as having large linear territories, with males up to 40 km and females 20 km[51]. Female otters have displayed higher activity on tributaries and lochs, as opposed to mainstem river locations[57], which makes up the riverine habitats present within the Proposed Development and local environment. Moreover, otter on mainland UK do not follow established breeding seasons, therefore as such may breed at any time of year[57].

Sources of Impact

8.4.4 Sources of impact, outlined in **Step 1** (**Section 8.1**) with potential to result in adverse effects to the qualifying features of the River Dee SAC have been identified and are discussed in the sections below:

Construction and Decommissioning

- **Factor 1: Direct or indirect habitat loss**

8.4.5 There is no direct or indirect habitat loss within the River Dee SAC as a result of the Proposed Development; as there is no direct overlap between the Proposed Development boundary and the SAC. Indirect effects of habitat degradation related to hydrological connectivity are considered separately below within Factors 2-7.

- **Factor 2: Changes in surface water quality or hydrological regime.**

8.4.6 FWPM are extremely sensitive to changes in water quality, notably fine sediments and changes in hydrological regimes. Given the close proximity of Proposed Development infrastructure to the three watercourses identified as having connectivity to the SAC (including where a 900 m stretch of access track runs approximately 2-15 m from the adjacent watercourse, crossings and poles within 45 m proximity to the nearest watercourse), there is

[41] Karlsson, S., Larsen, B. M. and Hindar, K. (2014). Host-dependent genetic variation in freshwater pearl mussel (*Margaritifera margaritifera L.*). *Hydrobiologia.* 735. pp. 179-190.
[42] NatureScot. (2018). Host salmonid specificity of selected pearl mussel populations. Research Report No. 972.

a clear pathway for the accidental introduction of sediment and pollutants from diffuse pollution related to groundworks required for the construction of the Proposed Development, with potential for accidental pollution events during construction. Under the LoD, and a worst-case scenario, Proposed Development infrastructure may be microsited closer to waterbodies with connectivity to the SAC, therefore reducing the potential pathway distance and potentially increasing effect. Any pollution associated with the construction phase is likely to be localised and temporary in nature.

8.4.7 Otter are likely to be indirectly affected by water quality deterioration, from impacts affecting the distribution and availability of favoured prey species within the Study Area, in this case likely limited to brown trout and European eel, *Anguilla anguilla.* Although European eel (hereafter referred to as 'eel') are migratory, individuals are able to circumnavigate barriers impassable to salmonids by travelling overland (where riparian habitat allows), therefore eels may also be present within the Proposed Development. Brown trout are sensitive to deterioration in water quality, notably the introduction of sediments, that may smother spawning nests (redds), and changes in water temperature. Water temperature and dissolved oxygen are inversely related, as such temperature increases may place brown trout outwith dissolved oxygen preferences with the potential to cause deterrence effects, injury and / or mortality if conditions become hypoxic.

8.4.8 FWPM themselves have also been recorded as prey species of otter[57]. Watercourse crossings required as part of the Proposed Development will be clear span and not culverted where there is suitable fish habitat; therefore, there will be no barrier effects to fish or otter using these watercourses.

8.4.9 Given a clear pathway for accidental introduction of sediment and pollutants into tributaries of the SAC, potentially effecting both FWPM and otter, this factor has been screened into the state to inform the appropriate assessment (SIAA).

- **Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence).**

8.4.10 FWPM do not have flight responses given their relatively immobile nature, however, show behaviour consistent with disturbance such as closing valves, and hence ceasing to feed[43]. Stimuli consistent with such responses are light, vibration and touch. Given the use of heavy machinery (excavators and all-terrain vehicles) and hydraulic breakers (required only where shallow rock is encountered), if present within the Proposed Development FWPM would be exposed to both noise and vibration from the access track and crossing location prior to mitigation measures. Any disturbance associated with the construction phase is likely to be localised and temporary in nature

8.4.11 Otter are sensitive to visual and noise disturbance. Although some individuals show heightened tolerance to disturbance, individuals present within the Proposed Development are likely intolerant of disturbance due to limited human and infrastructure presence in the adjacent landscape. As such, temporary disturbance of otter may result in short-term barrier effects, preventing otter movement along established commuting routes, loss of foraging area, which is likely to be temporary and short-term (as individuals are dissuaded from using established foraging ranges), increased energy expenditures (from flight response) and in extreme cases may affect breeding success.

8.4.12 Moreover, established work periods are between 07:30 and 17:00 during winter, which coincides with dawn and dusk where otter are known to be most active and therefore most susceptible to disturbance[49].

8.4.13 On this basis, disturbance to both FWPM and otter have been screened into the SIAA.

- **Factor 4: Direct or indirect accidental injury and / or mortality of species**

[43] Wilson, C. D., Arnott, G. and Elwood, R. W. (2012). Freshwater pearl mussel show plasticity of responses to different predation risks but also show consistent individual differences in responsiveness. *Behavioural Processes.* 89(3): 299-303.

8.4.14 FWPM are only likely to be directly impacted as a result of the Proposed Development where present at the location of any instream works. In-stream works and / or the movement of machinery across watercourses (prior to crossings being constructed) may result in injury and / or mortality from crushing. Indirect effects are likely to result from water quality as discussed in Factor 2.

8.4.15 Otter are at risk of potential injury and / or mortality via a number of pathways, including; accidental collision with construction vehicles, exposure to excavations, entrapment in equipment being stored within the Proposed Development, and indirectly through prey reduction via water quality deterioration (as discussed in **Factor 2**).

On this basis, disturbance to both FWPM and otter have been screened into the SIAA.

- **Factor 5: Disturbance of prey species due to construction (noise, light, vibration, construction worker presence).**

8.4.16 FWPM feed on organic matter, as such effects on prey species are screened out of the SIAA. However, disturbance of brown trout also has implications on host species availability, particularly when coinciding with the release of glochidia (FWPM larvae).

8.4.17 Brown trout and eel, both prey species of otter, are likely to be present within the Study Area. Both species are at risk of disturbance relating to in-stream works, water quality deterioration, movement of machinery across watercourses and noise / vibration from construction related activities, such as the use of hydraulic breakers near watercourses. As such there are clear pathways that may result in accidental injury and / or mortality of prey species prior to mitigation, as such effects have been screened into the SIAA.

- **Factor 7: Accidental spread of invasive non-native species (INNS)**

8.4.18 Establishment of INNS resulting from Proposed Development construction in suitable habitat for FWPM or brown trout / eel (trout as host species for FWPM and both as otter prey species) has the potential to deteriorate habitat for both qualifying species and / or habitat for prey species. A number of potential effect pathways exist, including via vehicles and construction equipment working alongside watercourses. Moreover, given the hydrological connectivity to the SAC, seeds / plant matter of INNS has potential to be carried downstream of the Proposed Development resulting in accidental establishment/spread of INNS, and as such this has been screened into the SIAA.

- **Factor 8: Impact on host species availability**

8.4.19 Increased sedimentation in watercourses during Proposed Development construction may impact brown trout (FWPM host species) through impaired respiration via effects on gill function, potentially resulting in asphyxia (and mortality). Sedimentation and introduction of other pollutants may occur due to construction of water crossings, dust kicked up from use of access tracks and / or from exposing bare soil. Given the minimum distance of the SAC boundary to the Proposed Development (2.38 km), it is considered unlikely that sedimentation will occur within the SAC via hydrological connectivity except in extreme scenarios; however, given the potential this has been screened into the SIAA. The Spital Burn is c. 4.58 km downstream of the infrastructure and as such is considered outwith the typical 2 km buffer afforded to water and airborne pollutants and is not considered for pollution effects.

8.4.20 A 2 km screening parameter was afforded for airborne transfer of silt, that may result in sedimentation; however, the distance between infrastructure and the SAC exceeds this. Pollutants exceeding this distance are unlikely to have an effect due to the velocity of water in the Water of Dye and its receptive volume diluting pollutants beyond concentrations with the potential to cause injury and / or mortality. As such this has been screened out of the SIAA.

8.4.21 Operation:

- **Factor 3: Disturbance resulting from increased operation noise and maintenance activities**

FWPM are unlikely to be disturbed by maintenance traffic and equipment, as such have been screened out of the SIAA.

8.4.22 An OC is required through areas of woodland and commercial forestry to ensure safe operation of the OHL and to provide access for maintenance; this is 36 m either side of the OHL in conifer areas (72 m total) and 12.5 m for access tracks (25 m total), in addition to micrositing under the LoD. The otter survey includes riparian habitat to a buffer of 20 m inland; it is therefore possible that the number of resting or breeding locations may be underrepresented within the OC. Moreover, during quieter operational periods it is possible that otter may move into riparian habitats within the OC prior to maintenance activities and thus resting / breeding sites if present, may be at risk of disturbance and /or destruction, with potential displacement of individuals. As such this effect has been screened into the SIAA.

8.4.23 Fowlsheugh SPA

Construction and Decommissioning

- **Factor 1: Direct or indirect habitat loss**

Typical herring gull habitat is within coastal shorelines, beaches and large open spaces near water; however, populations have been recorded travelling to inland areas of farmland, wetlands, reservoirs and landfill sites. Herring gull have been recorded as travelling as far as 85.6 km to forage offshore[44]. For the purposes of this assessment, it is assumed that herring gull foraging range estimates may include inland as well as offshore foraging trips and is therefore this qualifying species is considered to have potential connectivity to the Proposed Development. Presence of herring gull was noted during ornithology surveys as an incidental non-breeding species (see **Chapter 8** of the EIA Report and associated appendices).

Permanent habitat loss from the Proposed Development is predicted to be minimal, restricted to poles and access tracks, and as such, foraging habitat loss is not considered to be sufficient to effect food provisioning. Herring gull are considered a breeding qualifying interest species; however, effects on potential nest site availability has not been considered given the distance from the SPA. As such, direct or indirect habitat loss for herring gull has been screened out of the SIAA.

- **Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence)**

Construction works are likely to include a number of disturbing activities including, heavy machinery during construction or ground investigation works, delivery vehicles (including HGVs) and the constant presence of humans on-site. These factors are considered unlikely to cause deterrence/disturbance to foraging herring gull as the species has a low sensitivity and may be attracted to the construction activities where there is potential for opportunistic foraging (e.g. through ground disturbance). However, given the lack of foraging suitability within the Proposed Development with habitats largely comprising peatland and coniferous plantation, and the large availability of similar and more productive foraging habitat in the wider landscape, it is considered that habitats within the Proposed Development do not constitute an important food resource for herring gull.

Birds on nests with eggs / dependent chicks, within the SPA, will not be disturbed as a result of the Proposed Development due to the considerable distance between source and receptor (9.6 km). As such disturbance of nesting herring gull has been screened out of the SIAA.

- **Factor 4: Direct or indirect accidental injury and / or mortality of species**

In the absence of mitigation there is potential for injury and / or mortality of bird species when in contact with construction works. This includes but is not limited to injury and / or mortality caused by loud noises and contact with equipment (e.g. traffic contact). Considering herring gull would require to be in close contact with

[44] NatureScot. (2023). Guidance Note 3: Guidance to support Offshore Wind applications: Marine Birds – Identifying theoretical connectivity with breeding site Special Protection Areas using breeding season foraging ranges. [Online] Available at: https://www.nature.scot/doc/guidance-note-3-guidance-support-offshore-wind-applications-marine-birds-identifying-theoretical#4.+Recommended+foraging+ranges+used+to+assess+theoretical+connectivity (last accessed 09/10/2025)

construction machinery and activities to cause injury or mortality, and that herring gull presence within the Proposed Development is likely limited to infrequent long distance foraging from the SPA, the risk is concerned negligible. As such individuals are unlikely to be in close enough proximity to experience accidental injury and / or mortality. As such have been screened out of the SIAA.

- **Factor 5: Disturbance of prey species due to construction (noise, light, vibration, construction worker presence).**

Herring gull preferred diet includes marine vertebrates and invertebrates; however, they are noted for their opportunistic tendencies such as taking advantage of food waste. Considering the scale of the Proposed Development and standard best practice waste management (i.e. that food and waste will be disposed of correctly), it is not considered that any waste produced would be of a sufficient volume to attract individuals.

It is also considered that natural food sources, e.g. invertebrates, are unlikely to be present in significant volumes within the Proposed Development due to a lack of suitable habitat.. Exposed earthworks may attract opportunistic feeders; however, given the minor scale of earthworks in relation to the wider landscape, and the infrequent nature of birds foraging from the SPA, it is not considered to have a LSE and as such has been screened out of the SIAA.

Operation:

- **Factor 1: Accidental injury and / or mortality of birds though collision with lines**

Given that use of the Proposed Development by herring gull is likely limited to long distance foraging, and acknowledging the distance between the Proposed Development and SPA, it is considered that the risk of injury and / or collision with power lines is low. When combined with low incidences of herring gull presence near the Proposed Development, this effect has been screened out of the SIAA. Vantagepoint surveys identified a total of 41 flights of target species, with a total of seven of those flights recorded as crossing the OHL route; however, none of the flights were recorded at or in part as being between 0-30 m in height. There is currently no method of statistical analysis for predicted the risk of birds colliding with OHLs, as such, and in line with current NatureScot (2025)[45] guidance, the Proposed Development will include the use of line markers (or bird diverters) along targeted lengths of the OHL to reduce potential collision risk.

- **Factor 2: Accidental electrocution of birds**

Herring gull have not been recorded breeding within the Proposed Development and may nest in a variety of locations including roof tops, cliffs and the ground; however, they have not readily been recorded nesting on OHL structures. Considering the risk of accidental electrocution and / or fire is greatest when birds nest on OHL structures, it is considered that herring gull are not at risk of accidental electrocution and as such have been screened out of the SIAA.

- **Factor 3: Disturbance resulting from increased operation noise and maintenance**

Given the limited use of the Proposed Development by herring gull likely restricted to long range foraging, operation and maintenance activity are considered unlikely to result in disturbance or a greater deterrence from the area, and as such have been screened out of the SIAA.

8.4.24 Glen Tanar SPA

Construction and Decommissioning

- **Factor 1: Direct or indirect habitat loss**

Osprey have core ranges of 10 km with foraging ranges up to 20 km (maximum recorded 28 km) and a 2 km range for alternative nest sites[14]. As such it is considered that habitat loss (and any other effects) will not impact core ranges or be within ranges for alternative nest sites, with only long-distance foraging having potential to be affected. Osprey almost exclusively feed on fish, hunting in freshwater lochs, large rivers,

[45] NatureScot. (2025). Guidance – Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds. [Online] Available at: Guidance - Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds | NatureScot (last accessed 09/10/2025)

reservoirs or in coastal areas; considering no suitable habitat is present within the Study Area it is considered that habitat loss or habitat degradation (e.g. water quality) will not impact osprey, as such have been screened out of the SIAA.

- **Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence).**

Osprey were not recorded during VP surveys, with the only individual being recorded as commuting over the Proposed Development during raptor walkover surveys. Considering limited evidence of use within the Proposed Development, and the lack of suitable foraging habitat it is considered that osprey are unlikely to come in close proximity to potentially disturbing construction activities, and/or be at risk of accidental injury/mortality (Factor 4), as such Factor 3 and 4 have been screened out of the SIAA.

- **Factor 5: Disturbance of prey species due to construction (noise, light, vibration, construction worker presence).**

Although brown trout, a potential prey species of osprey, is likely to be present within the Proposed Development, the small/shallow nature of the upland watercourses make it unsuitable for osprey foraging. Moreover, given the widespread nature of brown trout, populations within the Study Area are unlikely to be important in supplementing downstream populations or providing a range of genetic types, and as such impacts on osprey prey species have been screened out of the SIAA.

Operation:

- **Factor 1: Accidental injury and / or mortality of birds though collision with lines**

Given the limited use of the Proposed Development by osprey restricted to commuting, it is considered that flight height is likely to be in excess of pole height; therefore, the risk of injury and/or collision with power lines is low when combined with low incidences of presence near the Proposed Development, and as such have been screened out of the SIAA.

- **Factor 2: Accidental electrocution of birds**

Osprey have been recorded making nests on many manmade structures, including OHL poles and towers. Nests on OHL pose a significant risk to both adult and juvenile osprey through fire hazards;, nest material may ignite from contact with energised wires, and through electrocution where individuals touch parts of the energised structure with their body, with juveniles being at greater risk than adults in both scenarios. Considering the Proposed Development is outwith core osprey ranges and alternative nest site ranges, it is considered that any incidences of osprey nesting within the Proposed Development would originate outwith the SPA, and as such have been screened out of the SIAA.

- **Factor 3: Disturbance resulting from increased operation noise and maintenance**

Given the limited use of the Proposed Development by osprey restricted to commuting, Proposed Development operation and maintenance activities are considered unlikely to result in disturbance or greater deterrence from the area, and as such have been screened out of the SIAA.

8.4.25 Montrose Basin – 18.7 km

Construction and Decommissioning

- **Factor 1: Direct or indirect habitat loss**

Greylag goose and pink-footed goose have core foraging ranges of 15 - 20 km, and as such fall within an 18.7 km distance from the SPA. Both species were observed during ornithology surveys. A single flight of greylag goose was recorded of the species from VP surveys. A total of eight flights of pink-footed goose totalling 828 birds were recorded from VP surveys. Six of the flights were between 30th October and 19th November 2023, with the other two flights on 10th April 2024; these dates are typical of migration south then north for this species. All the flight times (1,195 seconds total) were recorded over 50 m with no individuals observed to land.

It is considered that direct or indirect habitat loss will not affect either goose species, and as such they have been screened out of the SIAA.

- **Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence).**

Given the nature of geese presence limited to commuting over the Proposed Development, and no evidence of habitats within the Proposed Development being used as a roosting or feeding area, or a stopover site between these areas, there is a limited pathway for disturbance to geese. Any noise and vibration will have dissipated beyond discernible effect above 50 m. Moreover, it is generally considered that buffer distances of 500 – 1000 m in the non-breeding season from roosting/foraging sites are sufficient. As no individuals were recorded as landing within the Proposed Development there is unlikely to be a significant effect, as such potential effects have been screened out of the SIAA.

- **Factor 4: Direct or indirect accidental injury and/or mortality of species**

Given the nature of geese presence limited to commuting over the Proposed Development, and the recorded flight height in excess of 50 m, it is considered that activity during the construction phase is unlikely to be sufficient as to cause accidental injury or mortality of geese, and as such have been screened out of the SIAA.

Operation:

- **Factor 1: Accidental injury and/or mortality of birds though collision with lines**

Given all geese flights identified during the surveys were in excess of 50 m (see **Chapter 8** and associated appendices of the EIA Report), consistent with higher flying migratory routes, there is limited pathway for collision within the Proposed Development given the maximum tower height of 30 m. Habitats within the Proposed Development and immediate surrounds do not support a known goose roosting or feeding area, or a stopover site, therefore the risk of birds colliding with the Proposed Development is further reduced, as birds will not be flying at lower heights as they land. Whilst it cannot be guaranteed that geese will not fly lower in the future, use of line markers (or bird diverters) would further decrease risks, and as such, this effect has been screened out of the SIAA.

- **Factor 2: Accidental electrocution of birds**

Risk of accidental electrocution is limited to birds likely to nest and/or land on OHL infrastructure. Both species of goose are non-breeding qualifying interests; therefore will not nest within the Proposed Development and immediate surrounds, and as such have been screened out of the SIAA.

- **Factor 3: Disturbance resulting from increased operation noise and maintenance**

Given the nature of geese presence limited to commuting over the Proposed Development with a flight height in excess of 50 m, it is considered that limited activity during the operational phase of the Proposed Development will not be sufficient to cause disturbance, and as such this effect has been screened out of the SIAA.

8.5 Step 3, Part 2: For the Project In-Combination

Plans or projects considered for cumulative effect are outlined above in Table 4-1.

Sources of impact, outlined in Step 1 (**Section 8.1**) likely to result in adverse effects to qualifying features of relevant European Sites from in-combination effects are discussed. Mitigation for other developments has not been included in this assessment. Where stringent guidelines and/or construction regulations are in place for specific sectors, the inclusion of these in this assessment is stated.

8.5.1 River Dee SAC

Given that there are potential pathways for effects of the Proposed Development alone, potential effects of the Proposed Development in-combination with other projects or plans are also screened into the SIAA, to allow for detailed assessment, and are therefore not discussed further in the Stage 1 Screening.

8.5.2 Fowlsheugh, Glen Tanar and Montrose Basin SPA/Ramsar

No pathways for effect were identified for Fowlsheugh, Glen Tanar or Montrose Basin SPAs or Montrose Basin Ramsar in relation to the Proposed Development; therefore, the information presented above suggests that no current pathways exist that would contribute to a LSE on the qualifying interests of the SPA/Ramsar. There is therefore no potential for LSE in-combination with other plans or projects, thus in-combination effects are screened out of the SIAA.

8.6 Summary of Likely Significant Effects

A summary of predicted LSEs resulting from the Proposed Development are summarised below in **Table 8.2** for both LSEs resulting from the Proposed Development alone, and those predicted from in-combination effects with other developments.

Table 8-2 Summary of LSEs from the Proposed Development alone and in-combination with other plans/proposals

Factor	Phase	LSE Predicted for Project Alone?	LSE Predicted for In-combination Effects?	Included in AA?
River Dee SAC				
Factor 2: Changes in surface water quality or hydrological regime.	Construction Phase	Yes	Yes	**Yes**
Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence).		Yes	Yes	**Yes**
Factor 4: Direct or indirect accidental injury and/or mortality of species		Yes	Yes	**Yes**
Factor 5: Disturbance of otter prey species due to construction (noise, light, vibration, construction worker presence).		Yes (otter only)	Yes (otter only)	**Yes (otter only)**
Factor 7: Accidental spread of invasive non-native (plant) species		Yes	Yes	**Yes**
Factor 8: Impact on FWPM host species availability		Yes	Yes	**Yes**
Factor 3: Disturbance resulting from increased operational noise and maintenance (only otter)	Operation Phase	Yes (otter only)	Yes (otter only)	**Yes (otter only)**
Fowlsheugh SPA				
Factor 1: Direct or indirect habitat loss habitat	Construction Phase	No	No	**No**
Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence)		No	No	**No**
Factor 3: Direct or indirect accidental injury and/or mortality of species		No	No	**No**

Factor	Phase	LSE Predicted for Project Alone?	LSE Predicted for In-combination Effects?	Included in AA?
Factor 5: Disturbance of prey species due to construction (noise, light, vibration, construction worker presence).		No	No	**No**
Factor 1: Accidental injury and / or mortality of birds though collision with lines	Operation Phase	No	No	**No**
Factor 2: Accidental electrocution of birds		No	No	**No**
Factor 3: Disturbance resulting from increased operation noise and maintenance		No	No	**No**
Glen Tanar SPA				
Factor 1: Direct or indirect habitat loss habitat	Construction Phase	No	No	**No**
Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence).		No	No	**No**
Factor 5: Disturbance of prey species due to construction (noise, light, vibration, construction worker presence).		No	No	**No**
Factor 1: Accidental injury and / or mortality of birds though collision with lines	Operation Phase	No	No	**No**
Factor 2: Accidental electrocution of birds		No	No	**No**
Factor 3: Disturbance resulting from increased operation noise and maintenance		No	No	**No**
Montrose Basin SPA				
Factor 1: Direct or indirect habitat loss		No	No	**No**

Factor	Phase	LSE Predicted for Project Alone?	LSE Predicted for In-combination Effects?	Included in AA?
Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence).	Construction Phase	No	No	**No**
Factor 4: Direct or indirect accidental injury and / or mortality of species		No	No	**No**
Factor 1: Accidental injury and/or mortality of birds though collision with lines	Operation Phase	No	No	**No**
Factor 2: Accidental electrocution of birds		No	No	**No**
Factor 3: Disturbance resulting from increased operation noise and maintenance		No	No	**No**

8.7 Stage 3 Conclusion

This sHRA screening, assessed through Stages 1-3, concludes that on the basis of objective evidence and in view of best scientific knowledge, that there will not be any likely significant effects from the construction, operation, or decommissioning activities from the Proposed Development alone, or in-combination with other plans or projects, on the following European Sites:

- Fowlsheugh SPA;
- Cairngorms Massif SPA;
- Glen Tanar SPA;
- Montrose Basin SPA; and
- Montrose Basin Ramsar.

Stage 1 highlighted that likely significant effects cannot yet be ruled out without further assessment and / or mitigation on the River Dee SAC. Therefore, Stage 2 Appropriate Assessment of the River Dee SAC is required for the following qualifying interests:

- Freshwater pearl mussel; and
- Otter

In-combination effects will also be assessed for the River Dee SAC.

9. STAGE 4: APPROPRIATE ASSESSMENT

9.1 Step 1: Information on the Proposed Development and on the European Site

9.1.1 Step 1, Part 1: Information on the Proposed Development

9.1.2 A full description of the Proposed Development, including details of the construction, operation and decommissioning phases are provided in Section 6.1. Information on the Project Site

A full description of the Project Site, including habitats (Annex I) and species (Annex II) is provided in Section 6.2.

9.1.3 Step 1, Part 2: Information on European Sites

A full description of the European Sites is considered in Section 8.2, and further relevant ecological information for FWPM and otter provided in Section 8.3.1.

Qualifying / Special Conservation Interest

FWPM and otter were the only features of the River Dee SAC screened into the assessment of LSE (ALSE); Atlantic salmon were screened out on the basis that they have no access to the Proposed Development as a result of impassable barriers on connective tributaries. FWPM were screened in under a precautionary basis due to a lack of survey data indicating their absence. Relevant ecological information for both species is provided below.

FWPM are a primary qualifying species for the designation of the River Dee SAC[10]. FWPM have a complex life cycle that in the initial larval (glochidial) stage requires the presence of a salmonid host species, trout or salmon, onto which they attach and remain on gills for approximately nine months[38]. Juvenile mussels then drop off and reside in gravel within rivers. A healthy population of salmonids is critical in allowing population growth and sustaining a juvenile population of mussels.

Otter

The River Dee is a major east coast Scottish river, which flows uninterrupted for approximately 130 km from its upland reaches in the Cairngorms to the North Sea in Aberdeen. Otter are found throughout the Dee catchment, providing extensive areas of suitable habitat for otter foraging, resting and breeding. The Dee population is considered to be a strong, high-quality population in Scotland[38].

On the Water of Charr, two signs of otter were identified; a spraint and a potential otter holt (with partial prints). The potential holt is located approximately 180 m downstream of the wayleave and 165 m downstream of the LoD. The potential holt is located 200 m north of the nearest proposed tower; 210 m north-east of the tower platform and 230 m from the proposed watercourse crossing. No signs of otter were identified on the Stag Burn.

9.2 Step 2: Implications for European Sites

9.2.1 Step 2, Part 1: Effects of the Revised Proposed Development Alone

The following potential pressures were screened in for assessment within Stage 3: Likely Significant Effects (**Section 8**).

Construction / Decommissioning

Factor 2: Changes in surface water quality or hydrological regime;

Factor 3: Disturbance of species due to construction (noise, light, vibration, construction worker presence);

Factor 4: Direct or indirect accidental injury and/or mortality of species;

Factor 5: Disturbance of prey species due to construction (noise, light, vibration, construction worker presence) (otter only);

Factor 7: Accidental spread of invasive non-native (plant) species; and

Factor 8: Impact on FWPM host species availability.

Operation

Factor 3: Disturbance resulting from increased operation noise and maintenance (otter only).

9.2.2 Step 2, Part 2: Effects of the Proposed Development In-combination

Identification of Cumulative Developments and Plans

Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a particular location. The potential for cumulative effects from the Proposed Development with other plans and proposals has been assessed here.

For aquatic receptors potential cumulative effects are only likely to be significant for other developments located relatively close by (i.e., within 10 km) and within the same hydrological sub-catchments; therefore, this sHRA has assessed the cumulative effects on aquatic receptors within the same sub-catchment (which is the River Dye, the largest watercourse hydrologically connected to the Proposed Development within 10 km). Under a precautionary approach, it was deemed for the purposes of assessment that beyond 10 km there would be no discernible effects of pollution, with or in absence of mitigation measures, and is considered outside of the ZOI.

Projects considered for inclusion with the Proposed Development for cumulative effects are detailed above in Table 4-1. These include developments within the relevant study areas which are either operational, under construction, consented or for which a planning application has been submitted.

9.2.3 Step 2, Part 3: Assessment of effects on Conservation Objectives

River Dee SAC Project Alone

Conservation Objectives for all Qualifying Features

1. To ensure that the qualifying features of the River Dee SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status.

The assessment of Favourable Conservation Status (FCS) for qualifying features is determined via objectives 2a-c for all species (and 2-d for FWPM), as detailed in the sections below.

2. To ensure that the integrity of the River Dee SAC is restored by meeting objectives 2a, 2b, 2c for each qualifying feature (and 2d for freshwater pearl mussel).

Objectives 2a, 2b, 2c, and 2d (FWPM only) are assessed separately for FWPM and otter.

Freshwater pearl mussel

2a. Restore the population of freshwater pearl mussel as a viable component of the site

The presence of FWPM within the two connective tributaries of the River Dee SAC is currently unknown with no survey data available. Although naturally impassable waterfalls exist downstream of the Proposed Development on both the Water of Charr and Stag Burn (connective tributaries of the Water of Dye, part of the River Dee SAC) limiting Atlantic salmon presence; however, it is well established that FWPM can persist above barriers and rely on brown trout instead of Atlantic salmon[38]. Atlantic salmon are considered to be absent from both watercourses due to the presence of barriers. Under a precautionary basis, and in the absence of evidence, it is considered that FWPM are present throughout the full range of both tributaries and that brown trout, the only available host species, is also present.

A FWPM population is considered to be in favourable condition if there are more than or equal to 10 mussels per m^2 within quadrats in the 50 m transect (abundance levels A and B) and at least 20% of the mussels are <65 mm long (less than 20 years old) and at least some are <30 mm long (less than 10 years old)[46].

Possible activities that may deteriorate habitat quality and thus undermine the ability of the FWPM population to recover is discussed under Conservation Objective 2c. FWPM are highly sensitive to changes in habitat quality, notably fine sediment input, and deterioration in habitat may cause injury and/or mortality decreasing population sizes. Juvenile FWPM (<65 mm) are most sensitive to habitat deterioration with a near zero tolerance of sediment; loss of this demographic is particularly notable given it will prevent re-population in the future. Moreover, permanent or long-term damage to habitats may result in consistent inability to reproduce which may cause the population to become functionally extinct in the long term.

Restoration of the FWPM population within the SAC could also be compromised by a reduction in salmonid host species. The role of salmonids in providing a host species contributing to FWPM population status is discussed within 2d below.

2b. Restore the distribution of freshwater pearl mussel throughout the site.

The distribution, or presence, of FWPM within the Proposed Development is currently unknown. For the purposes of this assessment it is assumed that FWPM are fully distributed throughout the watercourses.

Distribution is most likely to be affected in the area of the works (the watercourse crossing location on the Water of Charr), and the area downstream. Should an accidental pollution incident occur during Proposed Development construction, pollutants will dilute with increasing distance downstream of the incident, in the increasing volume of water. Both upstream and downstream areas are additionally at risk of windblown pollutants (dependent on direction of wind), and run-off from the access tracks that closely follows the unclassified watercourse discharging into Spital Burn . Where FWPM are present near the proposed watercourse crossing, the crossing of watercourses by tracked vehicles / people, or falling debris (e.g. rocks destabilised in the watercourse margins) presents a low risk of crushing FWPM present, causing accidental injury and/or mortality. Factors with potential to affect habitat quality are discussed under Conservation Objective 2c.

FWPM distribution will be closely associated with the presence of a suitable host species, this is discussed under Conservation Objective 2d.

Given this potential distribution and the low reproductive rate of FWPM, should an accidental pollution incident occur during Proposed Development construction, the downstream population is unlikely to recover to an extent that the population is considered in favourable condition for several decades, even with management intervention.

Overall, in the absence of mitigation measures the Proposed Development has the **potential to undermine Conservation Objective 2b.**

2c. Restore the habitats supporting the freshwater pearl mussel within the site and availability of food.

The Proposed Development is unlikely to contribute to deterioration, improvement or plateau in habitat quality within the SAC, due to the distance between the SAC and the Proposed Development (3.10 km and 2.5 km). This distance is in excess of the 2 km screening parameter afforded to airborne pollutants. However, given FWPM may be present within the Burn of Charr and Stag Burn, habitats within the Proposed Development are considered to support qualifying interests of the SAC and therefore are considered within this assessment.

High quality habitat is essential to the restoration of habitats supporting FWPM. The CAP provides specific targets for water quality parameters[38]:

[46] Young MR, Hastie LC & Cooksley SL (2003). Monitoring the Freshwater Pearl Mussel, *Margaritifera margaritifera*. Conserving Natura 2000 Rivers Monitoring Series No. 2, English Nature, Peterborough.

- Nutrient concentrations (annual mean should be <0.005 mg/l for soluble reactive phosphorous);
- Mean Biochemical Oxygen Demand (BOD) (<1 mg/l);
- Filamentous algae (coverage <5%);
- Fine sediments (should be avoided);
- Redox potential (no difference between open and interstitial habitats); and
- River flow rates (as close to natural as possible).

Phosphorous increases are primarily associated with agriculture, sewage and industrial effluents, none of which are likely to present a pathway within the proposed construction works.

BOD has the potential to increase as a result of the Proposed Development, due to increases in surface run-off (from access tracks and watercourse crossing) and soil erosion. Increases in BOD decreases oxygen available for FWPM and host species and may result in a deterioration of water quality, putting individuals under respiratory stress.

Algal blooms emerge in light of increased temperatures, water stagnation and nutrient increases (non-exhaustive list), none of which are predicted effects from the Proposed Development.

FWPM live fully or partly buried in watercourse substrate; juveniles will inhabit interstitial areas and are fully buried in gravel. As a result of this, FWPM, notably during juvenile phases, are sensitive to sediment pollution where sediment settles and 'fills' the interstitial gaps cutting off oxygen to FWPM.

It is considered that no changes to water flow or quantity will occur as a result of the Proposed Development; therefore effects on FWPM and their host species from such changes have not been considered.

A deterioration of water quality as a result of contamination from fuel and / or chemical leakages could adversely affect FWPM and trout populations (and in turn FWPM in other areas of the catchment through a reduction in available host species undermining Conservation Objective 2d. Fuel and / or chemical leaks high in concentration could directly kill FWPM/salmonid host species in the direct vicinity of the Proposed Development. Fuel / chemical leaks in low concentration may have sub-lethal effects on both FWPM and salmonids affecting health. The specification of plants and fuel tanks is currently unknown and would be determined by the appointed contractor; however, it is assumed that under the worst case scenario a complete spill would accidentally cause <50 L of fuel to enter the water. If salmonids were present in the area during a major spill this is likely to cause injury and / or mortality. In an unmitigated scenario, this effect may undermine conservation objectives 2a. – 2d.

Mussels ingest fine particles of organic matter by drawing in water as a food source: the Proposed Development is considered unlikely to disrupt FWPM food source both in the affected watercourses and SAC.

In the absence of mitigation, the Proposed Development has the **potential to undermine conservation objective 2c** during the construction phase; through compromising water quality, specifically increasing BOD, fine sediment input, redox potential and accidental fuel spills.

2d. Maintain the distribution and viability of freshwater pearl mussel host species and their supporting habitats.

Within the River Dee catchment the primary FWPM host species is unknown. Several impassable natural barriers in the lower sections of the Water of Charr and Stag Burn near their confluences with the Water of Dye make Atlantic salmon presence unlikely, as such for the purposes of this assessment, and under the precautionary principle, it is assumed that only brown trout are likely to be present within the Proposed Development area and that they are a sufficient host species to support the FWPM lifecycle.

Noise and vibration have the potential for behavioural, sub-lethal and lethal effects on salmonids, dependent on the distance between effect and receptor, extent and duration. Density of water affects sound, and it travels faster in water than in air (4.8x faster)[47]. All fishes (including elasmobranchs) detect and use particle motion, particularly at frequencies below several hundred Hz. In the case of salmonids, the swim bladder is positioned further from the ear, so the species experiences more sensitivity to vibration than directly from sound

pressure[47]. Thus, changes in behaviour, population levels and / or distribution may result in an inadequate population abundance to support FWPM; an abundance of >0.1 native juvenile host salmonid per m^2 should ensure adequate host species density[38].

Salmonids are particularly sensitive to sediment pollution during the spawning season: currently the schedule of works indicates that works will be conducted in all months of the year, as such there is potential for in-stream and / or bankside works to overlap with the spawning period (October – February). Sediment input has the potential to smother redds (salmonid spawning nests), limiting or preventing a flow of oxygen supply affecting the hatching success rate[48].

In the absence of mitigation, the Proposed Development has the **potential to undermine Conservation Objective 2d.**

Otter

2a. Maintain the population of otter as a viable component of the site.

The Conservation Advice Package[38] states:

'*This conservation objective is considered to be met if the conditions for the species' long-term survival are in place'*. This includes:

- Avoiding effects that could lead to a permanent reduction in the otter population through mortality, injury, or impacts caused by disturbance or displacement. This includes for example the effects caused by development, river engineering, water pollution, roads without adequate crossing provision for otters or suitable culverts, or entanglement in fishing gear;
- Maintaining the species' ability to use all areas of importance within the site (to be considered under conservation objective 2b);
- Maintaining access to, and availability of, undisturbed resting places; and
- Maintaining access to, and availability of, supporting habitats and prey (to be considered under conservation objective 2c).

Otter is a wide-ranging and highly mobile species. The population at the River Dee SAC is reliant on suitable habitat within the European Site and surrounding landscape, including with adjoining SACs and is unlikely to be viable (capable of being self-sustaining) in isolation[38]. The home range of an otter will vary depending on their sex, habitat quality and food availability. It will also vary between freshwater and coastal environments. Males living in freshwater (i.e. rivers and streams) can have a mean linear range size of around 40 km and females living in the same habitat can have a linear home range of around 20 km; however, males have been recorded ranging as far as 80 km[38]. Specific to the population on the River Dee, studies have indicated that female otter activity was on tributaries and lochs, opposed to main stem locations[38].

At this SAC, some otters that have parts of their territories within the SAC may also feed in coastal waters that lie outwith the SAC boundary (e.g. Greyhope Bay and Nigg Bay). In coastal areas, otter densities may be as high as 0.5 - 0.7 animals / km with smaller linear home ranges, typically 4 km[38]. The mouth of the River Dee is in excess of 25 km from the Proposed Development (straight line distance): taking this and the known mean linear ranges of male otter and the considerably smaller home ranges of coastal otter into account (with the extension of otter home ranges to a maximum of 4 km upstream on a precautionary basis), coastal otter have been screened out of further assessment.

Avoiding effects that could lead to a permanent reduction in the otter population through mortality, injury, or impacts caused by disturbance or displacement.

[47] Popper, A.N. and Hawkins, A.D., 2019. An overview of fish bioacoustics and the impacts of anthropogenic sounds on fishes. Journal of fish biology, 94(5), pp.692-713.

[48] Greig, S. M., sear, D. A. and Carling, P. A. (2005). The impact of fine sediment accumulation on the survival of incubating salmon progeny: Implications for sediment management. *Science of the Total Environment.* 344 (1-3): 241:258.

The death or injury of an otter could affect the conservation status of this species in the SAC, potentially representing an offence under relevant legislation.

The construction works are likely to require open trenches and large excavations (e.g. borrow pit/SuDs). As such in an unmitigated scenario there is a risk of otter becoming accidentally trapped / injured in such features and/or being unable to care for young. Smaller turf/soil stripping will be required in areas to create level ground, e.g. for infrastructure foundations; however, these are unlikely to be significant (<1 m in depth), with no realistic prospect of otters becoming trapped or injured in such features.

Otter is widespread locally and nationally, with the Scottish population estimated to be 8,000[49]. Otter on the River Dee have been reported as being in a favourable declining condition (pending results of further investigatory results following recent large flooding events). Otters that live in freshwater habitats occupy very large home ranges which may contain up to 30 resting sites[50]. Otters are able to adapt to a certain level of human disturbance[51]. NatureScot advise exclusion zones of 200 m around breeding holts, and 30 m around non-breeding resting places, with a development licence required if such exclusion zones are not possible[52].

Given the location of the Proposed Development, it is considered that existing disturbance of habitat used by otters is minimal, and thus individuals are likely to exhibit low tolerance to disturbance from construction of the Proposed Development.

No breeding holts were identified within the Proposed Development or buffer. Riparian habitat was considered poor for natal holt availability, with exposed banks characterised by minimal tree and scrub coverage, minimal large rocks or riverbank crevices, or other cavity forming features present. As such it is considered unlikely without intervention that riparian habitats within the Proposed Development will support significant breeding opportunities in the future.

One potential holt was located >200 m from the LoD but was not monitored for evidence of breeding as it was outwith the NatureScot buffer (of 200 m).

Otter are most active during crepuscular periods (dawn and dusk) as such the risk of vehicle collision is highest during this period. During winter periods, October to February, proposed work hours of 07:30 to 17:00 overlap with dawn and dusk periods. For example, in Aberdeen (taken to be nearest location) in December the sun rises at approximately 08:45 and sets at 15:30[53]: this provides a total overlap of 2.75 hours of working time and peak otter activity. As such, during this seasonal timeframe otter are considered to be at a high risk of accidental vehicle collision in the absence of mitigation.

Maintaining access to, and availability of, undisturbed resting places

No otter resting locations or suitable breeding habitats within 200 m of riparian habitats would be damaged or disturbed as a result of Proposed Development construction. Moreover, no proposed infrastructure or temporary construction compounds would result in the creation of any significant obstructions between identified otter resting locations and known foraging ranges (indicated by resting location and spraints). One watercourse crossing is proposed on watercourses connected to the River Dee. This comprises a clear span bridge with no instream structures, therefore is unlikely to create an obstruction, fragmentation of habitat or divide home ranges.

Otter may become accustomed to the higher level of disturbance over time (for example otter are known to utilise watercourses within cities) but may initially abandon resting locations or holts in the immediate vicinity of the working area during the construction of the Proposed Development.

[49] NatureScot. (2024). Otter. [Online] Available at: https://www.nature.scot/plants-animals-and-fungi/mammals/land-mammals/otter (last accessed 09/10/2025)
[50] Environment Agency. (1999.) Otters and River Habitat Management. Environment Agency: Bristol.
[51] Chanin, P. (2003). Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No. 10, English Nature: Peterborough
[52] NatureScot. (2018). Protected Species Advice for Developers. [Online] Available at: https://www.nature.scot/sites/default/files/2018-09/Species%20Planning%20Advice%20-%20otter.pdf (last accessed 09/10/2025)
[53] Time and Date. (2025). Aberdeen, Scotland, United Kingdom – Sunrise, Sunset, and Daylength, December 2025. [Online] Available at: https://www.timeanddate.com/sun/uk/aberdeen?month=12 (last accessed 09/10/2025)

In the absence of mitigation, the proposed development has the **potential to undermine Conservation Objective 2a.**

2b. Maintain the distribution of otter throughout the site.

Distribution of otter within the River Dee SAC has the potential to be impacted by displacement and barrier effects during the construction phase.

The watercourse crossing on the Water of Charr is not considered to present a permanent barrier to otter movement; however, construction works on / near watercourses is likely to create a temporary barrier effect in the forms of noise, lighting and human/vehicle disturbance. No flood lighting or permanent light fixtures are proposed on or within 50 m minimum of watercourses. During the construction period it is expected that otter are unlikely to significantly utilise the section of watercourses within the Proposed Development; however, given the minimal extent of any watercourse effects, this is not considered to be sufficient to change the distribution or home ranges of otter (for females this is approximately 0.5% of their territory and 0.25% for males)[54]. Any disturbance effects (displacement and barrier effects) would be temporary in nature.

Maintaining the species' ability to use all areas of importance within the site

The CAP states '*the ability for otter to use and access all areas of importance within the SAC should be maintained*'. Considering the Proposed Development is only likely to affect two tributaries of the River Dee SAC, and not the mainstem or designated tributaries, it is considered that the Proposed Development will not affect the species' ability to use all areas of importance within the River Dee SAC.

In the absence of mitigation, the Proposed Development is considered to have a low risk of **undermining Conservation Objective 2b.**

2c. Maintain the habitats supporting otter within the site and availability of food.

Potential pollution of watercourses and water features could result in long-term damage to the productivity of nearby habitats for supporting otter and their favoured prey species (fish), causing both accidental injury and/or mortality.

Pollutants from roads can be particularly detrimental during periods of high rainfall and subsequent surface water runoff, mobilising large amounts of fine sediments and toxic chemicals from vehicles[55].

Accidental spillage of hydrocarbons (oil or diesel) has the potential to immediately reduce the availability of prey through fish kills, when hydrocarbons are present in sufficient concentrations. Otter have high metabolic rates[56] requiring 1-1.5 kg of food daily; therefore sudden reduction in prey availability is considered particularly dangerous, leaving otter at risk of starvation. Otter are more susceptible to mortality in low prey density environments that require further travel, or where otter have dependent cubs. Moreover, pollutants such as oil and diesel have potential to affect thermo-regulation qualities of otter's coats, potentially resulting in hypothermia and mortality should direct contact be made[57].

Within the Proposed Development boundary, the greatest risk of pollutants entering the River Dee tributary is at the watercourse crossing at NO 61498 80319 on the Water of Charr. Multiple pathways for accidental pollution exist during the Proposed Development construction stage, including introduction of sediment, hydrocarbons and concrete washout (highly alkaline) during the construction of watercourse crossings and access track upgrades. Considering the access track runs parallel to the watercourse at a distance of 100 m, it is considered that there is a potential pathway for windblown pollution and surface runoff in periods of high rainfall and in the absence of mitigation measures.

[54] Assuming a 20 km home range for female and 40 km home range for males
[55] Conroy, J. W. H. and Chanin, P. R. F. (2000). The Status of the Eurasian otter (*Lutra lutra*) in Europe – a review.
[56] Ruff. K. A. (2007). Nutritional and energetic studies on captive Eurasian otters (*Lutra lutra*).
[57] Kruuk, H. (1995). Wild Otters: Predation and Populations. OUP: Oxford.

Maintaining access to, and availability of, supporting habitats and prey

Otter require suitable habitat for foraging, resting and breeding. Riparian habitat providing otter with suitable opportunities for establishment of resting locations is limited within the Water of Charr and Stag Burn, due to a lack of dense scrub or vegetation in bankside areas. Similarly, opportunities for holt creation are already limited with a lack of boulders, crevices and/or other cavity forming features, such as tree roots, which would be required to provide secure holts above flood waters. Ongoing muirburn management within the area is also likely to suppress vegetation establishment in open habitats. Effects of pollution on watercourses, as a supporting habitat and habitat of prey species, are considered above.

It is considered that no changes to water flow or quantity will occur as a result of the Proposed Development; therefore, effects on otter and their prey species have not been considered.

In the absence of mitigation, the Proposed Development has the **potential to undermine Conservation Objective 2c.**

River Dee SAC Project In-Combination

The in-combination assessment for the River Dee SAC is provided below in **Table 9-1** (see **Chapter 5, Section 5.5** of the EIA Report for further details of the developments considered).

Table 9-1 River Dee SAC In-Combination Assessment for the Proposed Development and relevant plans and proposals

Development	Details of Development	Application Status	Distance (km) and orientation to Proposed Development	Connectivity to Project
Glendye Wind Farm	108 MW Wind Farm	Consented	1.9 km W	Glendye Wind Farm (and associated developments) lies southwest of the Glendye OHL. Three tributaries of the Water of Dye (Water of Charr and two unnamed tributaries) provide direct hydrological connectivity from Glendye Wind Farm to the Water of Dye (part of the River Dee SAC). Both the Water of Dye and Water of Charr were identified as having connectivity to the Proposed Development (refer to Table 5-2). As such a number of pathways for impact exist including deterioration of water quality through windblown pollution and direct pollution, introduction of INNS, disturbance of otter (potential to have overlapping territories) and injury and / or mortality to FWPM and their host species Atlantic salmon and brown trout. Where construction periods overlap with the Proposed Development this effect has the potential to be greater in-combination. No significant effects are predicted during operational periods. **Significant in-combination effects** are predicted.
Glendye Wind Farm Access	Access Track	Consented	0 km WSW	
Glendye Substation	132 kV Substation	Consented	0.075 km WSW	
Glendye OHL Permitted Development	132 kV underground cable	Pre-Application	0 km	The Glendye OHL permitted development, which is inclusive of an underground cable runs adjacent to the Water of Charr, a primary connective tributary of the River Dee SAC. Given the close proximity of the works, (at the closest point occurring within 30 m within the LoD), there is potential for hydrological pollution during the construction period. As designs have not been finalised it is possible that some design iterations may have a smaller impact, e.g. the cable lying uphill of the access track may have a buffering effect and / or methods used may reduce ground disturbance. However, under a worst-case scenario there is potential for pollution including introduction of fine sediments and pollutants associated with machinery into the Water of Charr effecting FWPM and salmonid host species, in addition to disturbance of otter, notably where construction periods overlap. **Significant in-combination effects** predicted.
Fetteresso Wind Farm	25 MW Wind Farm	Consented	0.96 km NE	Fettereso Wind Farm (and associated infrastructure) has been screened out of in-combination effects as it lies in a different hydrological catchment and is in excess of 2 km from any connective tributaries from the River Dee SAC. **No significant in-combination effects** predicted.
Fetteresso Wind Farm Grid	132 kV OHL connection	Pre-Application	0 km	

Development	Details of Development	Application Status	Distance (km) and orientation to Proposed Development	Connectivity to Project
Connection / Access Corridor			ENE	
Hurlie Offshore Wind Farm / onshore connection	Potential Area for offshore connections	Pre-Application	1.41 km ENE	Hurlie offshore Wind Farm onshore connection is located 1.41 km from the most easterly section of the Proposed Development, and as such is in excess of 17 km (straight line distance) from the connective tributaries of the River Dee SAC. It has been screened out of hydrological connectivity given distance for windblown pollution and its location within another hydrological catchment. **No significant in-combination effects** predicted.
Hurlie 400 kV Substation, Fetteresso Forest	400 kV substation	Application	0 km ENE	Hurlie substation lies immediately east of the of the Glendye OHL. It has been screened out of hydrological connectivity to the River Dee SAC given distance for windblown pollution and its location within another hydrological catchment. **No significant in-combination effects** predicted.
Quithel Battery Energy Storage System (BESS)	BESS	Pre-Application	0 km ENE	Quithel BESS lies immediately east of the of the Proposed Development. It has been screened out of hydrological connectivity to the River Dee SAC given the distance for windblown pollution and its location within another hydrological catchment. **No significant in-combination effects** predicted.
Kintore to Tealing 400 kV OHL	106 km 400 kV OHL	Pre-Application	0.82 km SW	The Kintore to Tealing OHL runs perpendicular to the east of the Proposed Development. The OHL intersects the River Dee SAC in its lower reaches west of Aberdeen. Given the distance (as the river flows) is in excess of 40 km and the maximum range considered for male otter, it is considered unlikely that both developments will encroach on a single otter territory. As such individual otters are unlikely to experience cumulative effects from both developments and therefore **no significant in-combination effects** are predicted on otter.

Development	Details of Development	Application Status	Distance (km) and orientation to Proposed Development	Connectivity to Project
				Given the Proposed Development was concluded as being unlikely to affect Atlantic salmon, due to a lack of connectivity and dilution effects from the distance downstream where they are most likely to be present, it is considered that in-combination effects are unlikely and it is therefore concluded as **no significant in-combination effects** predicted on Atlantic salmon. FWPM are assumed to be present in both the Proposed Development works area and the River Dee. It is considered that any effects on FWPM from water quality issues (in the absence of mitigation) would be de minimis given the dilution effect of the distance downstream where the Kintore to Tealing OHL intersects the River Dee. Overall, **no significant in-combination effects** predicted.
Bowdun Offshore Wind Farm Onshore Cable Connection and substation	Underground cable and substation	Pre-Application	1.56 km ENE	Bowdun offshore Wind Farm lies immediately east of the of the Proposed Development: the only part of the development considered for potential in-combination effect is the onshore cable connection and substation element. There is currently no information on the onshore cable route and whether this will intersect the lower reaches of the River Dee SAC. This development has been screened out of hydrological connectivity to the River Dee SAC, given the unlikely distance for windblown pollution and its location within another hydrological catchment. **No significant in-combination effects** predicted.
Herscha Hill Wind Farm 2	800 kW	Operational	6.37 km NE	Herscha Hill Wind Farm lies west of the east end of the Proposed Development. It has been screened out of hydrological connectivity to the River Dee SAC given the unlikely distance for windblown pollution and its location within another hydrological catchment. **No significant in-combination effects** predicted.

9.3 Step 3: Effects on Integrity

Without mitigation and considering in-combination effects, the Proposed Development has the potential to undermine the following conservation objectives for River Dee SAC, and therefore represents an adverse effect on the integrity of the SAC:

All features

1. To ensure that the qualifying features of the River Dee SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status.

2. To ensure that the integrity of the River Dee SAC is restored by meeting objectives 2a, 2b, 2c for each qualifying feature (and 2d for freshwater pearl mussel).

Freshwater pearl mussel

2a. Restore the population of freshwater pearl mussel as a viable component of the site

2b. Restore the distribution of freshwater pearl mussel throughout the site.

2c. Restore the habitats supporting the freshwater pearl mussel within the site and availability of food.

2d. Maintain the distribution and viability of freshwater pearl mussel host species and their supporting habitats.

Otter

2a. Maintain the population otter as a viable component of the site.

2c. Maintain the habitats supporting Atlantic salmon / otter within the site and availability of food.

Potential to undermine Conservation Objectives primarily relates to water quality / pollution issues and potential disturbance to otter, for which mitigation measures are provided in Section 9.4 below.

9.4 Step 4: Mitigation Measures

For the potential effect pathways undermining Conservation Objectives identified above in Step Three, proposed mitigation measures, and the predicted effects following the application of the proposed measures, are presented below. The mitigation measures detailed include good practice measures that would reduce or remove effects upon the qualifying features, as well as more tailored mitigation measures that would reduce or remove effects.

General Mitigation Measures are listed below (see also **Appendix 3.3: General Environmental Management Plans, Appendix 3.4: Species Protection Plans and Appendix 3.5: Outline CEMP** of the EIA Report).

- A suitably qualified ECoW shall be appointed to review and agree the contractor's methodology prior to mobilising the works areas. The ECoW would provide supervision as required to ensure ecological interests are safeguarded, and would be present during vegetation clearance, moving between works locations, and all reinstatement and de-mobilizing works within 200 m of connective tributaries. The ECoW role includes pre-construction checks as required, briefing site personnel with toolbox talks and overseeing sensitive works such cutting back / stripping vegetation. The ECoW would also agree any micro-siting.
- The contractor will appoint an ECoW or suitably qualified individual to conduct *in-situ* water quality monitoring for the duration of the works in all tributaries entering the River Dee SAC. Potential water pollution effects resulting from oils and hydrocarbons should be monitored via indirect measurement by proxy; a monitoring sonde should be equipped to monitor oxidation reduction potential, electrical conductivity, dissolved oxygen and organic matter to pick up on changes as a result of contamination. If water quality is indicative of pollutants, *ex-situ* monitoring should be conducted at suitable intervals to monitor pollution and provide mitigation recommendations.
- Any fish kills will be retained, recorded and reported to the relevant body.
- All potentially dangerous substances or materials would be carefully stored to prevent causing any harm to fauna which may enter the works areas at night.
- An emergency procedure would be in place should any previously unrecorded protected species or their resting sites be encountered during the works. All work would cease in the area immediately and the ECoW would be consulted to determine any further mitigation requirements. For example, the implementation of suitable setbacks or buffer zones, and consultation with statutory bodies or licence applications, if required.
- A 15-mph speed limit would be in place.
- A logbook of wildlife sightings will be kept during the works and the data will be supplied to the ECoW who would forward to any relevant conservation bodies, local biological records centre etc., as required.
- Any lighting necessary for works to proceed will be directed away from features such as vegetation with potential to be used by mammals as places of shelter, mammal paths, watercourses and treelines, to minimise light disturbance on otter, fish and other sensitive fauna.
- Low impact vehicles would be utilised where possible for the construction of the watercourse crossing and access track running parallel to the Water of Charr.
- An emergency response plan for accidental water pollution events would be produced to provide suitable mitigation strategy measures to respond to worst-case scenarios, e.g. a major oil spill.
- The section of permanent access track running parallel to the Water of Charr would be sprayed with water during prolonged dry spells and / or where dust is produced (or other suitable dust suppression method) during construction periods. Water would be sourced out with the River Dee SAC hydrological catchment or sourced with sufficient water that abstraction would not alter water levels.

9.4.1 Inadvertent introduction of invasive non-native species and spread of pest / pathogens – mitigation measures

No INNS have been identified within the works areas during baseline surveys. In order to minimise the risk of introducing invasive non-native species into the area, and to prevent the spread of pests / pathogens, the following biosecurity measures shall be adhered to for the duration of the works:

- At the start of works, all site personnel will be briefed with details of this biosecurity protocol.
- Machinery tracks and tyres, and any other machinery parts / equipment that could come into contact with soil or water, shall be checked and cleaned before entering the site. Any mud and organic debris must be removed.
- All personnel shall check and clean footwear before arriving on site for the first time, as well as before moving to different parts of the site or different sites. This shall include the disinfecting of footwear, as directed by the ECoW.
- Strict biosecurity measures for all equipment use in water should be adhered to including 'Check, Clean, Dry'[58] methods and sprayed with disinfectant (e.g. virkon). All clothing worn in water should follow this same protocol (e.g. wellington boots, waders, dry suits, lifejackets) and is inclusive of equipment used during pre-works checks for FWPM and otter.
- Soil and vegetation shall not be transported from one part of the site to another. Any soil movement required (i.e. for drill rig level areas and settling tank placement) shall be stored next to the works area and reinstated in the correct profile immediately after completion of works.
- Any positive or suspected identification of INNS, or pests / pathogens, shall be reported immediately to the ECoW.

With the above biosecurity mitigation measures being adhered to, the risk of introducing INNS would be negligible.

9.4.2 Pollution risk from accidental fuel spill – mitigation measures

Good practice measures in relation to pollution risk would be adopted during the works, and relevant Scottish Environment Protection Agency (SEPA) Guidance for Pollution Prevention (GPP) and Pollution Prevention Guidance Notes (PPG)[59] would be adhered to where relevant. The mitigation would comprise the following:

- Works would be conducted in accordance with SSEN General Environmental Management Plans (GEMPs) including:
  - Oil Storage and Refuelling (TG-NET-ENV-510);
  - Soil Management (TG-NET-ENV-511);
  - Working in or Near Water (TG-NET-ENV-512);
  - Working in Sensitive Habitats (TG-NET-ENV-513);
  - Working with Concrete (TG-NET-ENV-514);
  - Watercourse Crossings (TG-NET-ENV-515);
  - Waste Management (TG-NET-ENV-516);
  - Contaminated Land (TG-NET-ENV-517);
  - Dust Management (TG-NET-ENV-520);
  - Biosecurity (On Land) (TG-NET-ENV-521); and
  - Restoration (TG-NET-ENV-522).
- Refuelling would be undertaken under strict guidelines only by authorised operatives following Contractor procedure SENG-OPS-WP-RSP.
- Fuel would be stored in a double-skinned bunded fuel bowser or cube, located at least 50 m from watercourses. These storage containers would be locked when not in use.

[58] GB Non-native Species Secretariat. (2025). Check Clean Dry. [Online] Available at: Check Clean Dry » NNSS (last accessed 06/10/2025)
[59] SEPA. (2013). Pollution prevention and control. [Online] Available at: Pollution prevention and control | Scottish Environment Protection Agency (SEPA) (last accessed 06/10/2025)

- Emergency spill response kits would be maintained during the works. These spill kits would be available at the location of each item of plant being refuelled.
- Drip trays or plant nappies would be placed under machinery that could potentially leak fuel / oils.
- When transferring fuel to the work site via a secondary container (Jerry can), only the required amount of fuel to fill the plant would be taken. Refuelling would be undertaken in a controlled manner to ensure no over-filling occurs. Tapered funnels would be employed when using Jerry cans.
- Water for temporary site welfare facilities will be brought to site, and foul water will be collected in a tank. This would be collected for offsite disposal at an appropriately licensed facility and managed in accordance with PPG4.
- The ECoW or other suitably qualified individual will conduct *in-situ* water quality monitoring, in tandem with the measures proposed for the protection of FWPM, for the duration of the works.
- Refuelling operations are to be strictly controlled with the minimum fuel required for the day's work taken to the plant at the start of the shift, with funnels and drip trays used during refuelling operations.
- Refuelling will be carried out only by trained and authorised operatives.
- Fuel delivery hoses will have handles and triggers for increased control.
- An emergency plan will be in place to deal with spillage and leaks.

9.4.3 Freshwater Pearl Mussel Mitigation Measures

- A pre-construction survey would be conducted by a licenced surveyor(s) for FWPM following the NatureScot shallow water survey methodology[60]. The survey would cover at minimum the area of the watercourse crossing in addition to a 100 m upstream and 500 m downstream buffer.
- Baseline fully quantitative electrofishing would be conducted on watercourses subject to watercourse crossings within the LoD, to clarify the absence of Atlantic salmon and to quantify the salmonid host population in line with Marine Scotland Science Guidance[61].
- A fish habitat survey would be conducted within the LoD and 100 m downstream of all watercourse crossing locations to identify any potential areas suitable for salmonid spawning. Where these are identified locations of potential fords and / or any instream works should be sited away from them.
- No instream works would take place during sensitive salmonid periods from 30th September to 31st May, this is inclusive of the salmonid spawning period (October to January in the Dee catchment) and the period where laid eggs match to alevins between March and May. Works may be able to take place out with this period where baseline surveys indicate habitat, and habitat immediately downstream, do not include substrate and flow types suitable to support salmonids at any life stage (including the presence of spawning substrates). Any works proposed to be conducted out with this period should be discussed and agreed with the local District Salmon Fishery Board.
- As advised by the ECoW, a fish rescue would be conducted in the works area surrounding the watercourse crossings where deemed necessary, with barrier nets put in place for the duration of the watercourse crossing works, to prevent fish moving back into the area during construction works in close vicinity of sensitive riparian habitats.

9.4.4 Otter Mitigation Measures

[60] NatureScot. (2018). Freshwater Pearl Mussel Survey Protocol for use in site-specific projects. [Online] Available at: https://www.nature.scot/sites/default/files/2018-04/Freshwater-pearl-mussel-survey-protocol-for-use-in-site-specific-projects.pdf (last accessed 09/10/2025)

[61] Marine Scotland Science. (2021). Publication - Advice and guidance: Freshwater and diadromous fish and fisheries associated with onshore wind farm and transmission line developments: generic scoping guidelines. [Online] Available at: Freshwater and diadromous fish and fisheries associated with onshore wind farm and transmission line developments: generic scoping guidelines - gov.scot (last accessed 09/10/2025)

- Prior to works commencing a pre-works check for otter would be conducted on affected watercourses covering 250 m upstream and downstream of the limit of deviation. All potential otter resting locations identified in baseline surveys would be re-visited and checked for signs of activity. Where appropriate further monitoring (e.g. the use of endoscope and/or camera traps) may be required to establish use and/or breeding of resting locations/breeding holts.
- Prior to works commencing, exclusion zones of 30 m around identified otter resting places within the vicinity of the works, extended to up to 200 m for any confirmed breeding holts, shall be implemented, as demarcated by the ECoW using warning fencing or tape, to prevent disturbance and to ensure legislative compliance. No site personnel or machinery would be permitted within the exclusion zones, except under licence.
- The ECoW will attend site on a regular basis throughout the works period to ensure all environmental mitigation relevant to otter is delivered.
- The ECoW will provide a toolbox talk to all contractors on the site, during which all staff will be informed of the potential issues with regard to otter. All new contractors to the site would receive a toolbox talk and this would be updated on a need-by-need basis at a minimum frequency of once a month.
- Although pipe systems are not expected to be required, if they are required, then any temporarily exposed pipe systems shall be capped when contractors are off site to prevent otters (or other animals) from gaining access.
- Any trial pits will only remain open for a few of hours and will be continuously supervised while open. Trial pits will be fully reinstated before the end of each working day. In the unlikely event that any are needed to be left overnight, these will be fitted with ramped edges to enable escape, where possible be covered, or be fitted with mammal ramps to ensure that any animals that enter can safely escape. All excavations would be checked prior to commencement of works to ensure no animals have become trapped overnight. Excavations would be backfilled as soon as possible to minimise the potential for animals to become trapped.
- Update checks will be undertaken by the ECoW prior to works, within 48 hours of clearance activities / the commencement of works. This would include all suitable habitat within 200 m of the works areas.
- If additional otter resting sites or holts are identified during the pre-works checks, appropriate buffers shall be maintained (comprising 30 m for a resting site or non-breeding holt, and up to 200 m for a breeding holt). Where these buffers cannot be maintained, an additional licence or licence amendment would be obtained from NatureScot prior to works within these buffers, which would detail appropriate additional mitigation.
- Should disturbance / destruction of a previously unrecorded place of shelter be suspected, then all reasonable practical steps must be taken to minimise or prevent further damage / disturbance, and those steps documented in the ECoW Log. Consultation with NatureScot may be required through this process in the event of a suspected wildlife conflict event.
- Work on watercourses or within 50 m will avoid working between the hours immediately after dawn and before dusk.

The above mitigation measures would ensure that otters are protected, that there would be no detrimental impact on the contribution to the maintenance of otter at a favourable conservation status, and that relevant legislation is adhered to.

The residual effects on the conservation objectives, with mitigation in place, for the River Dee SAC are assessed below in **Table 9.2**.

Table 9-2 Residual effects for the River Dee SAC

Qualifying Feature	Conservation Objective	Relevant Mitigation	Residual Effect – Alone	Residual Effect – In-Combination	Objective Undermined?
All Features					
1. To ensure that the qualifying features of the River Dee SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status.		As below, under 2a-c (and d for FWPM).	As below, under 2a-c (and d for FWPM).	As below, under 2a-c (and d for FWPM).	No
Freshwater Pearl Mussel					
2. To ensure that the integrity of the River Dee SAC is restored by meeting objectives 2a, 2b, 2c and 2d for FWPM	2a. Restore the population of freshwater pearl mussel as a viable component of the site	The ECoW will attend site on a regular basis throughout the works period to ensure all environmental mitigation relevant to pollution prevention is delivered; Pre-construction survey of watercourses for FWPM; Pre-works checks for any in-stream works; Adherence to relevant SEPA PPG / GPP guidance; Adherence to all INNS and pollution risk (from fuel spill) mitigation measures; Water quality monitoring.	If best practice SEPA PPG / GPP guidance is adhered to and control measures outlined, there would be no significant adverse effect on populations on FWPM, with negligible pollution risk. The conservation objective would therefore not be undermined.	No additional	No
	2b. Restore the distribution of freshwater pearl mussel throughout the site.				No
	2c. Restore the habitats supporting the freshwater pearl mussel within the site and availability of food.				No
	2d. Maintain the distribution and viability of freshwater pearl mussel host species and their supporting habitats.	Electrofishing surveys; Fish rescue in watercourse crossing works area.			No

Qualifying Feature	Conservation Objective	Relevant Mitigation	Residual Effect – Alone	Residual Effect – In-Combination	Objective Undermined?
Otter					
2. To ensure that the integrity of the River Dee SAC is restored by meeting objectives 2a, 2b and 2c for otter.	2a. Maintain the population otter as a viable component of the site.	As above; Pre-works check for otter within 250 m of the confirmed OHL alignment; Adherence to 15 mph speed limit; Avoid sensitive periods of dawn / dusk.	If best practice SEPA PPG / GPP guidance is adhered to and control measures outlined, there would be no significant adverse effect on populations on otter, with negligible pollution risk. The conservation objective would therefore not be undermined.	No additional	No
	2b. Maintain the distribution of the species throughout the site.				No
	2c. Maintain the habitats supporting Atlantic salmon / otter within the site and availability of food.				No

10. CONCLUSION

10.1 Screening

The Stage 1: sHRA screening concluded that on the basis of objective evidence and in view of best scientific knowledge, that there will not be any likely significant effects from the construction, operation, or decommissioning activities from the Proposed Development alone, or in-combination with other plans or projects, on the following European Sites:

- Fowlsheugh SPA;
- Cairngorms Massif SPA;
- Glen Tanar SPA; and
- Montrose Basin SPA.

10.2 Appropriate Assessment

All features of the River Dee SAC were screened into the Stage three, Step three assessment of likely significant effects. Although the presence of FWPM and Atlantic salmon was not confirmed prior to the compilation of the sHRA, they have both been included under the precautionary principle due to the hydrological connectivity to the River Dee, and the possibility they may exist as meta-populations of the River Dee populations. Impassable barriers were established on both connective tributaries of the Water of Dye, and as such it was concluded that Atlantic salmon would be unable to access within 2 km of the Proposed Development and were screened out of the Stage four appropriate assessment.

FWPM and otter were both screened into the appropriate assessment. Due to the potential that brown trout may be present as a suitable host species above the impassable barriers, consideration was given to them as a suitable host species.

In the absence of mitigation measures, the following conservation objectives have the potential to be undermined:

<u>All features</u>

1. To ensure that the qualifying features of the River Dee SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status.

2. To ensure that the integrity of the River Dee SAC is restored by meeting objectives 2a, 2b, 2c (and 2d for FWPM).

<u>Freshwater pearl mussel</u>

2a. Restore the population of freshwater pearl mussel as a viable component of the site.

2b. Restore the distribution of freshwater pearl mussel throughout the site.

2c. Restore the habitats supporting the freshwater pearl mussel within the site and availability of food.

2d. Maintain the distribution and viability of freshwater pearl mussel host species and their supporting habitats.

<u>Otter</u>

2a. Maintain the population otter as a viable component of the site.

2c. Maintain the habitats supporting Atlantic salmon / otter within the site and availability of food.

Following completion of the Appropriate Assessment, it is concluded that once mitigation has been applied, no Conservation Objectives would be undermined by the Proposed Development, either alone or in-combination with other plans or projects.

ANNEX 1

Appropriate Assessment Process

Further information is provided here on the appropriate assessment process as described by NatureScot guidance[19] and EC Guidance[5,6].

Stage One: AA Screening

Stage One is a preliminary assessment, the purpose of which is to determine whether a plan or project requires more detailed assessment, including the identification of mitigation measures.

There are two principal tests. The first considers whether the plan or project is needed for the management of a European Site for the purpose of maintaining or restoring its conservation interest. Any such plans or projects can usually be screened out of further assessment.

The second test considers whether the plan or project, without specific mitigation measures, would be likely to have a significant effect on any European Site. This requires consideration of the project on its own and in-combination with other plans or projects. A project can only be screened out of further assessment if it is certain (beyond reasonable scientific doubt and on the basis of the best scientific knowledge) that there would be no significant effects on any European Site without detailed scientific investigation or mitigation designed specifically to address potential impacts on the qualifying interest of such sites. Significant effects in this assessment are those which could undermine the conservation objective(s) of a qualifying interest feature of a European Site and therefore of the site itself. The process is used to determine which European Sites should be included in the later stages of the assessment. It can also be used to determine which qualifying interest features require further assessment.

The objective of the screening stage is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in-combination with other plans or projects, could have significant effects on a European site in view of the site's conservation objectives.

There is no necessity to establish such an effect; it is merely necessary for the competent authority to determine that there may be such an effect. The need to apply the precautionary principle in making any key decisions in relation to the tests of Appropriate Assessment (AA) has been confirmed by the case law of the Court of Justice of the European Union (CJEU). Plans or projects that have no appreciable effect on a European Site may be excluded. The threshold at this first stage is a very low one and operates as a trigger in order to determine whether a Stage Two AA must be undertaken by the competent authority on the implications of the Proposed Development for the conservation objectives of a European Site. Therefore, where significant effects are likely, uncertain or unknown at screening stage, a second stage AA will be required.

Since the screening assessment must be completed by the competent authority, this report is intended to provide the competent authority the information it requires following the same steps.

Measures intended to avoid or reduce the harmful effects of the Proposed Development on European Sites (i.e. “mitigation measures”) or best practice measures have not been taken into account in the screening stage appraisal.

Stage Two: Appropriate Assessment

Stage Two is a more detailed assessment, known as an “Appropriate Assessment” due to the terminology in the legislation. This essentially repeats the second test of the screening assessment but in more detail and considering mitigation measures before reaching a conclusion.

At this stage, the test is whether the project or plan will have an adverse effect on the integrity of any European Site. This must be done in the light of the conservation objectives for each of the sites and qualifying interest features that have been ‘screened in’ by the earlier stage of assessment. Any effect which could undermine the conservation objectives is considered an adverse effect on the integrity of the site, and vice versa. If the

Proposed Development, with mitigation included, is predicted to lead to adverse effects upon the integrity of the site, further stages of assessment are required before the Proposed Development can be authorised.

A Stage Two AA is a focused and detailed examination, analysis and evaluation carried out by the competent authority of the implications of the plan or project, alone and in-combination with other plans and projects, on the integrity of a European Site in view of that site's conservation objectives. Case law has established that such an Appropriate Assessment, to be lawfully conducted, in summary:

(i) must identify, in the light of the best scientific knowledge in the field, all aspects of the Proposed Development which can, by itself or in-combination with other plans or projects, affect the conservation objectives of the European site;

(ii) must contain complete, precise and definitive findings and conclusions and may not have lacunae or gaps; and

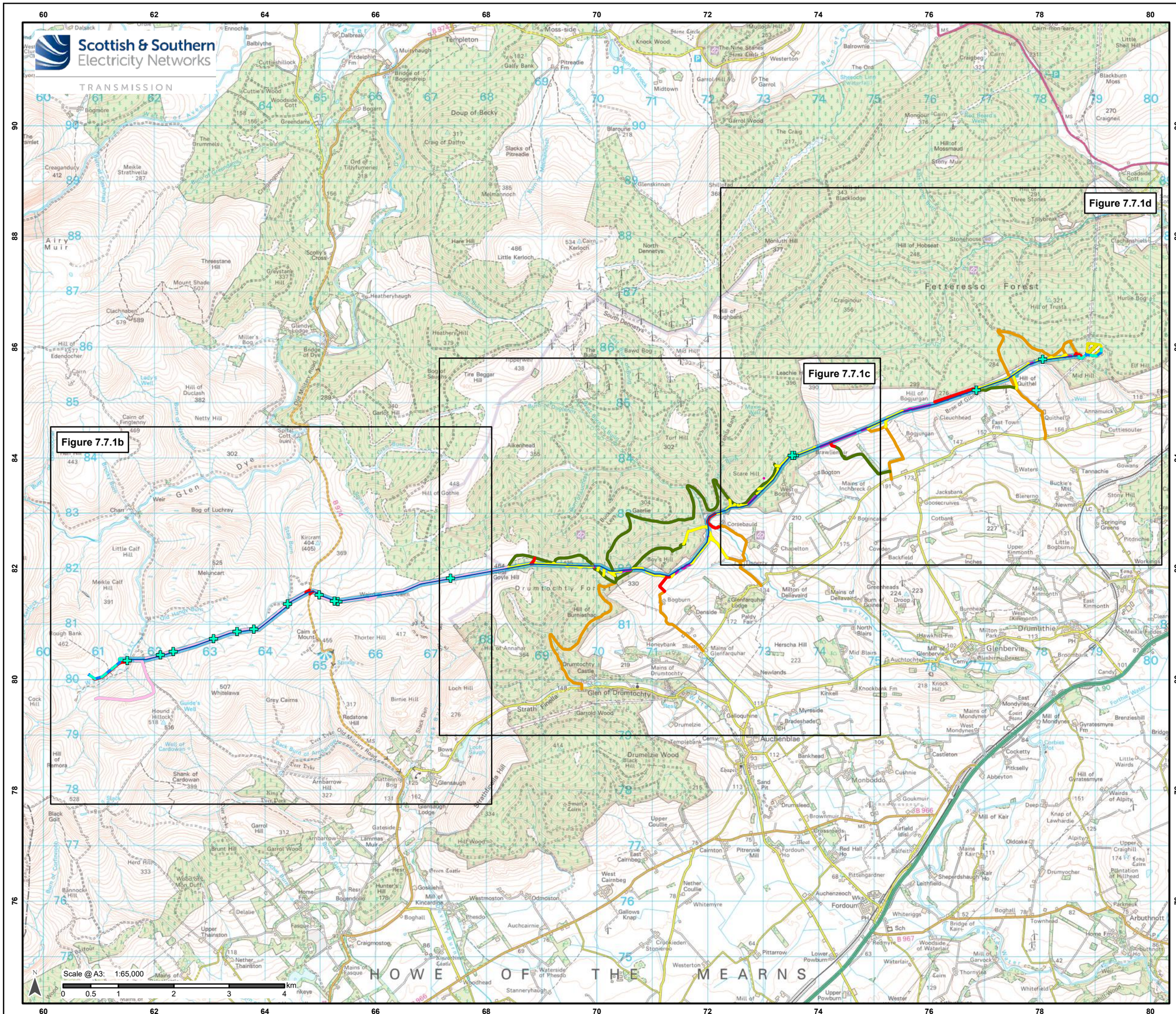
(iii) may only include a determination that the Proposed Development will not adversely affect the integrity of any relevant European Site where the competent authority decides (on the basis of complete, precise and definitive findings and conclusions) that no reasonable scientific doubt remains as to the absence of the identified potential effects. If adverse impacts can be satisfactorily avoided or successfully mitigated at this stage, so that no reasonable doubt remains as to the absence of the identified potential effects, then the process is complete. If the assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded, then the process must proceed to stage three and, if necessary, stage four.

ANNEX 2

Conservation Advice Packages/ Conservation Objectives

- Fowlsheugh SPA[62];
- Cairngorms Massif SPA[63];
- Glen Tanar SPA[64];
- Montrose Basin SPA[65];
- River Dee SAC[66].

[62] NatureScot. (2024). Fowlsheugh SPA Conservation Advice Package. [Online] Available at: SiteLink - Fowlsheugh SPA
[63] NatureScot. (NA). Cairngorms Massif SPA Conservation Advice Package. [Online] Available at: SiteLink - Cairngorms Massif SPA
[64] NatureScot. (NA). Glen Tanar SPA Conservation Advice Package. [Online] Available at: SiteLink - Glen Tanar SPA
[65] NatureScot. (NA). Montrose Basin SPA Conservation Advice Package. [Online] Available at: SiteLink - Montrose Basin SPA
[66] NatureScot. (2005). River Dee SAC Conservation Advice Package. [Online] Available at: conservation-advice-package.pdf



Legend

S.37 Overhead Line (OHL) Works

- Proposed OHL Alignment

Ancillary Development

- Proposed Permanent Track
- Proposed Temporary Trackway Panel
- Proposed Temporary New Stone Track
- Existing Track
- Existing Track to be Upgraded
- Proposed ATV Route
- Proposed Permanent Bridge or Culvert

Limit of Deviation

- Proposed OHL and Access Track Limit of Deviation (LoD)

Permitted Development

- Indicative 132 kV Underground Cable Alignment

Existing Development

- Existing Fetteresso Substation

Project No: LT468/469

Project: Glendye Wind Farm Overhead Line Grid Connection

Title: EIA Report
Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA)
Proposed Development Location
Figure 7.7.1a

Drawn by: QF Date: 09/10/2025

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Legend

S.37 Overhead Line (OHL) Works

- Proposed OHL Pole Location
- Proposed OHL Alignment

Ancillary Development

- Proposed Permanent Track
- Proposed Temporary Trackway Panel
- Proposed Temporary New Stone Track
- Existing Track
- Existing Track to be Upgraded
- Proposed ATV Route
- Proposed Permanent Bridge or Culvert

Limit of Deviation

- Proposed OHL and Access Track Limit of Deviation (LoD)

Permitted Development

- Indicative 132 kV Underground Cable Alignment

Existing Development

- Existing Fetteresso Substation

Scale @ A3: 1:25,000

0 0.25 0.5 1 1.5 2 km

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) Proposed Development Location Figure 7.7.1b
Drawn by:	QF
Date:	09/10/2025

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68 70 72 74

84 82 80

Scale @ A3: 1:25,000
0 0.25 0.5 1 1.5 2 km

Legend

S.37 Overhead Line (OHL) Works

- Proposed OHL Pole Location
- Proposed OHL Alignment

Ancillary Development

- Proposed Permanent Track
- Proposed Temporary Trackway Panel
- Proposed Temporary New Stone Track
- Existing Track
- Existing Track to be Upgraded
- Proposed ATV Route
- Proposed Permanent Bridge or Culvert

Limit of Deviation

- Proposed OHL and Access Track Limit of Deviation (LoD)

Permitted Development

- Indicative 132 kV Underground Cable Alignment

Existing Development

- Existing Fetteresso Substation

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) Proposed Development Location Figure 7.7.1c
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74 76 78 80

88 86 84

Scale @ A3: 1:25,000
0 0.25 0.5 1 1.5 2 km

Legend

S.37 Overhead Line (OHL) Works

- Proposed OHL Pole Location
- Proposed OHL Alignment

Ancillary Development

- Proposed Permanent Track
- Proposed Temporary Trackway Panel
- Proposed Temporary New Stone Track
- Existing Track
- Existing Track to be Upgraded
- Proposed ATV Route
- Proposed Permanent Bridge or Culvert

Limit of Deviation

- Proposed OHL and Access Track Limit of Deviation (LoD)

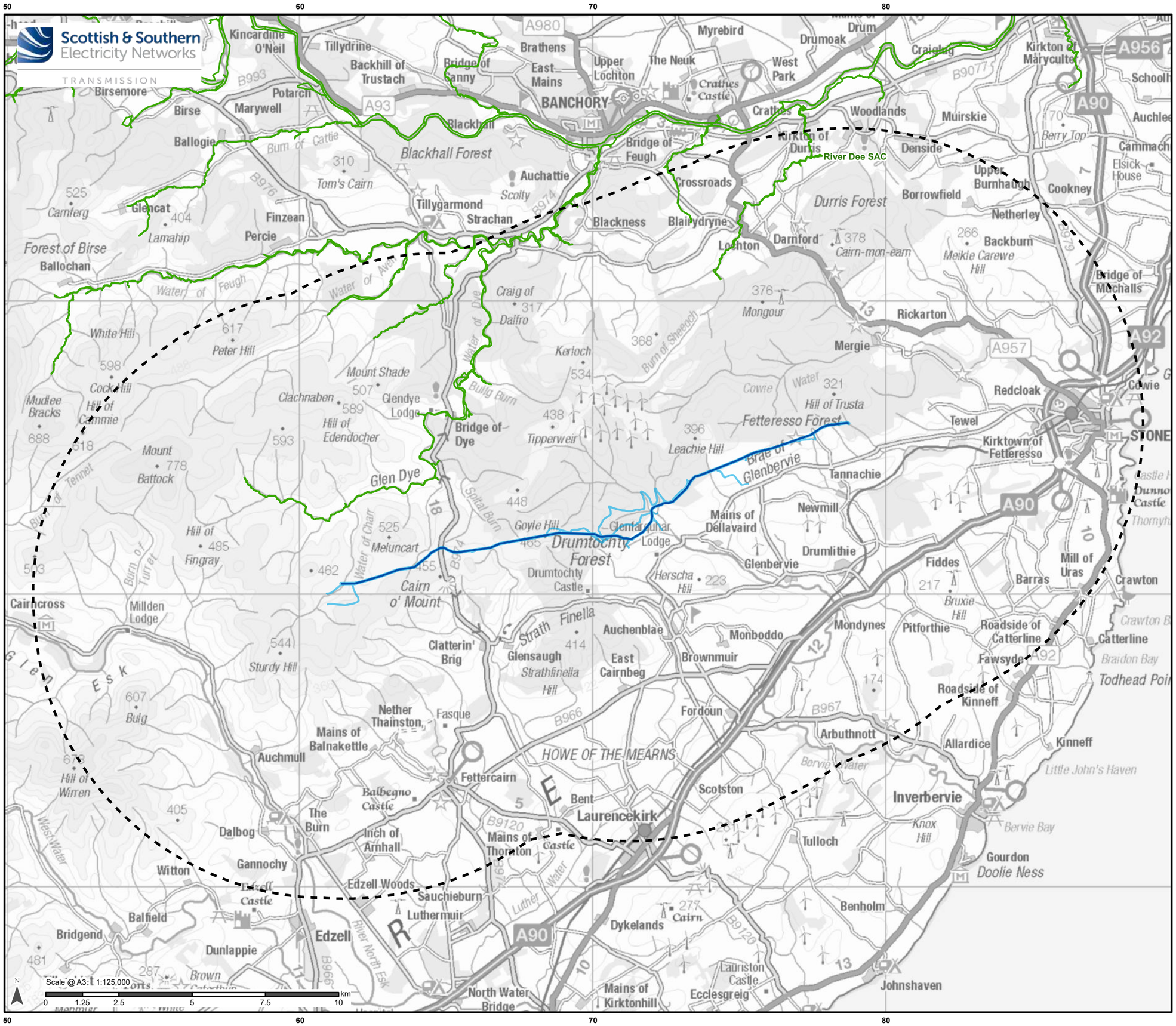
Permitted Development

- Indicative 132 kV Underground Cable Alignment

Existing Development

- Existing Fetteresso Substation

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) Proposed Development Location Figure 7.7.1d
Drawn by:	QF
Date:	09/10/2025



Legend

- Proposed Overhead Line (OHL) Alignment
- Proposed OHL and Access Track Limit of Deviation (LoD)
- Proposed OHL and Access Track Limit of Deviation 10 km Buffer

Statutory Designated Sites

- Special Area of Conservation (SAC)

Note
No Ramsar Sites within 10 km Buffer.

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) SAC and RAMSAR Sites within 10 km of the Proposed Development Figure 7.7.2
Drawn by:	QF
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Glen Tanar SPA
Cairngorms Massif SPA
Fowlsheugh SPA
Montrose Basin SPA
Montrose Basin Ramsar

Scale @ A3: 1:200,000
0 2.5 5 10 km

Legend

- Proposed Overhead Line (OHL) Alignment
- Proposed OHL and Access Track Limit of Deviation (LoD)
- Proposed OHL and Access Track Limit of Deviation 20 km Buffer

Statutory Designated Sites

- Special Protection Area (SPA)
- Ramsar

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) SPAs and RAMSAR Sites within 20 km of the Proposed Development Figure 7.7.3
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Figure 7.8.5c

Figure 7.8.5b

M1 M2 M18 M19 M20 M22 M27 M29 M30 M31 M32 M33

Scale @ A3: 1:65,000
0 0.5 1 2 3 4 km

Legend

S.37 Overhead Line (OHL) Works

- Proposed OHL Alignment

Ancillary Development

- Proposed Permanent Track
- Proposed Temporary Trackway Panel
- Proposed Temporary New Stone Track
- Existing Track
- Existing Track to be Upgraded
- Proposed ATV Route
- Proposed CSE Hardstanding Area
- Proposed Permanent Bridge or Culvert

Limit of Deviation

- Proposed OHL and Access Track Limit of Deviation (LoD)

Otter Survey Results

- Survey Area (OHL Alignment Corridor 250 m Buffer & Track 200 m Buffer)

Otter Evidence

- Couch
- Holt
- Intact Spraint
- Prints

Hydrological Features

- Watercourse (OS Openmap Local)
- Waterbody (OS Openmap Local)

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) Otter Survey Results and Hydrological Connectivity Figure 7.7.4a
Drawn by:	QF
Date:	09/10/2025

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61 61 62

81 80

Old Hangy Burn
West Stripe of Charr
West Stripe of Charr
M1
M2
Grains
Crammont's

Scale @ A3: 1:5,000
0 50 100 200 300 400 m

Legend

S.37 Overhead Line (OHL) Works

- Proposed OHL Pole Location
- Proposed OHL Alignment

Ancillary Development

- Proposed Permanent Track
- Proposed Temporary New Stone Track
- Proposed CSE Hardstanding Area
- Proposed Permanent Bridge or Culvert

Limit of Deviation

- Proposed OHL and Access Track Limit of Deviation (LoD)

Otter Survey Results

- Survey Area (OHL Alignment Corridor 250 m Buffer & Track 200 m Buffer)

Otter Evidence

- Holt
- Prints

Hydrological Features

- Watercourse (OS Openmap Local)
- Waterbody (OS Openmap Local)

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) Otter Survey Results and Hydrological Connectivity Figure 7.7.4b
Drawn by:	QF
Date:	09/10/2025

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71 72 73

84 83 82

Bervie Water
Belle's Burn
Maxie Burn
Benty Grains
Burn of Guinea
Burn of Gaerlie
Quadeby
Grey's Burn
Burn of Bankhead
Bervie Water

M18 M19 M20 M22 M27 M29 M30 M31 M32 M33

N
Scale @ A3: 1:10,000
0 100 200 400 600 800 m

Legend

S.37 Overhead Line (OHL) Works

- Proposed OHL Pole Location
- Proposed OHL Alignment

Ancillary Development

- Proposed Permanent Track
- Proposed Temporary Trackway Panel
- Existing Track
- Existing Track to be Upgraded
- Proposed ATV Route
- Proposed Permanent Bridge or Culvert

Limit of Deviation

- Proposed OHL and Access Track Limit of Deviation (LoD)

Otter Survey Results

- Survey Area (OHL Alignment Corridor 250 m Buffer & Track 200 m Buffer)

Otter Evidence

- Couch
- Intact Spraint
- Prints

Hydrological Features

- Watercourse (OS Openmap Local)
- Waterbody (OS Openmap Local)

Project No:	LT468/469
Project:	Glendye Wind Farm Overhead Line Grid Connection
Title:	EIA Report Appendix 7.7 Shadow Habitats Regulations Appraisal (HRA) Otter Survey Results and Hydrological Connectivity Figure 7.7.4c
Drawn by:	QF
Date:	09/10/2025