

**Scottish Hydro Electric Transmission plc**

**Beauly- Denny Overhead Line Diversion**

**Habitats Regulations Appraisal Stage 1 and 2**

**July 2025**



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## 1. INTRODUCTION AND BACKGROUND

### 1.1 Overview

- 1.1.1 This Habitats Regulations Appraisal (HRA) Screening Report has been prepared by WSP UK Limited ("WSP") on behalf of Scottish Hydro Electric Transmission plc ("the Applicant") who, operating and known as Scottish and Southern Electricity Networks Transmission ("SSEN Transmission"), own, operate and develop the high voltage electricity transmission network in the north of Scotland and its remote islands. In this HRA Screening Report, the terms 'Applicant' and 'SSEN Transmission' are used interchangeably, unless the context requires otherwise. The HRA Screening Report has been prepared to accompany an application for consent under section 37 (s37) of the Electricity Act 1989.
- 1.1.2 The HRA Screening Report is required to assess potential impacts/effects to European sites from proposals to permanently divert the existing 400 Kilovolt (kV) overhead transmission line (OHL) between Beaully and Denny, a distance of approximately 1.7 km and tie it in to the new proposed Fanellan 400 kV Hub. A temporary OHL diversion will also be required to enable the permanent OHL diversion (hereafter these works are referred to as the 'Proposed Development'). This would be located on land (hereafter the 'Site') approximately 14 km to the west of Inverness in Highland, Scotland (National Grid Reference: NH 488 428). The location of the Site is shown in **Annex A, Figure 1: HRA: Relevant European Sites and Site Location**.

### 1.2 Description of the Proposed Development

- 1.2.1 The Proposed Development for which s37<sup>1</sup> consent and deemed planning permission is sought comprises:
- Diversion of approximately 1.7 km of new 400 kV OHL supported by steel lattice towers, including three new angled tension towers, two new terminal towers and one new suspension tower;
  - Construction of two temporary towers to allow for construction of the new towers (the temporary diversion will be in place approximately 9 months);
  - The removal of a section of the existing Beaully-Denny 400 kV OHL, including four existing suspension towers, two of which will be replaced with new angle towers;
  - The construction of new access tracks and diversion of existing (note some of these are shared with the proposed Fanellan 400 kV Hub and have been included in that application (25/00826/FUL), and some relate solely to the OHL are within this application; and
  - Construction of temporary site compound, laydown areas and stockpile areas (included with the proposed Fanellan 400 kV Hub application 25/00826/FUL as will be used by the contractor on that development too).
- 1.2.2 The proposed alignment of the replacement OHL is hereafter referred to as the 'proposed OHL alignment' and is illustrated in **Figure 1.2: Project Design**; it is approximately 1.7 km in length and will be supported by steel lattice towers as is the existing OHL. The temporary OHL diversion is minimal as it simply diverts the OHL in two places, away from existing suspension towers, to two new temporary suspension towers.
- 1.2.3 To strike a balance between providing certainty between the location of the proposed OHL alignment and any environmental impacts, and the need for some flexibility over individual tower

<sup>1</sup> Applications for consent to construct and operate new overhead lines made under Section 37 of the Electricity Act 1989.

locations and accesses, Limits of Deviation (LoD) have been defined within which the proposed OHL alignment will be constructed. No towers will be located outside the LoD described.

### **1.3 Ancillary Development**

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

- the formation of access tracks (temporary and permanent and diversions to existing tracks)- as noted above some of these are shared with the proposed Fanellan 400 kV Hub and have been included in that application (25/00826/FUL), and some relate solely to the OHL are within this application to facilitate access;
- the removal of two of the existing suspension towers;
- tree felling and vegetation clearance to facilitate construction and operation of the Proposed Development, to comply with the Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002; and
- measures to protect road and water crossings and veteran trees during construction (scaffolding etc.).

### **1.4 Limits of Deviation**

1.4.1 A Limit of Deviation (LoD) defines the maximum extent within which a development can be built. It should be noted that the design of the Proposed Development described within the EA Report has been established following the identification of detailed environmental and technical considerations. Investigation of sub-surface and geotechnical conditions was undertaken in August and September 2023 to determine ground conditions with further ground investigations ongoing. There is therefore a high degree of certainty with respect to the location of infrastructure, as presented within this EA Report. 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. Consideration is given to the following principles in defining the LoD for the Proposed Development:

- presumption towards the proposed OHL alignment whilst providing flexibility for micro-siting during the detailed design phase; and
- presumption towards avoiding sensitive environmental features and minimising impacts on land use.

1.4.2 The LoD on the proposed OHL alignment and temporary access tracks is 50 m, allowing for each proposed tower and temporary access tracks to be micro-sited up to 50 m from its proposed location.

1.4.3 It is possible that further engineering analysis at the detailed design stage might alter the required heights of towers necessary to maintain statutory ground clearance, a vertical LoD parameter is, therefore, included to allow a height adjustment of up to +/- 20% of the proposed tower heights.

## 1.5 Description of OHL Infrastructure

- 1.5.1 The towers to be used for the Proposed Development will be constructed from fabricated galvanised steel and will be grey in colour. The Proposed Development will use an 'SSE400' series of lattice steel tower (as shown in Plate 2.1 below), which can vary in height between 46 m (suspension tower) and 69 m (terminal tower) (which includes for potential extensions). The maximum tower height for the permanent OHL diversion, based on current assessments is 59.42 m which includes a 3m height adjust (tower LG/LYA-8A). Three types of tower will be used within the Proposed Development permanent OHL diversion as follows:
- Suspension towers: These are used for straight sections of OHL where there is no need to manage uplift loads on the support structure;
  - Angle/ tension towers: These are used either for straight sections, where there is a need to manage uplift pressures on the support structure, and / or where there is a need to change the direction of the OHL alignment; and
  - Terminal tower: Proposed at new Fanellan substation, from which the termination of the OHL to the substation is made. Towers will carry two circuits, each with three conductors supported from either, glass, porcelain, or composite insulators attached to the horizontal cross arms on both sides of each lattice steel tower. An earth wire with a fibre optic core will be suspended between tower peaks, above the conductors.
- 1.5.2 Towers will carry two circuits, each with three conductors supported from either, glass, porcelain, or composite insulators attached to the horizontal cross arms on both sides of each lattice steel tower. An earth wire with a fibre optic core will be suspended between tower peaks, above the conductors.
- 1.5.3 The span length (distance between towers) will vary depending on topography, and land usage. The current average span from the initial assessment is 315 m with maximum span of 464 m along the permanent alignment. For the temporary alignment it is an average of 397m with a maximum of 561m. However, the temporary alignment is a single circuit on one side of the towers as opposed to two circuits.
- 1.5.4 The newly diverted OHL will tie into and out of the proposed Fanellan 400 kV Hub (Substation side) using two new terminal towers. The terminal towers will be located on a new platform which has been allowed for in the design of the proposed Fanellan 400 kV Substation.
- 1.5.5 A total of six new towers are proposed to be constructed to form the permanent diversion as part of the Proposed Development. This includes two new terminal towers, three new angled tension towers, and one new suspension tower.
- 1.5.6 Temporary suspension towers will also be constructed to allow for the construction of the new Proposed Development. The temporary diversion is likely to be in place for approximately 9 months and will use conventional steel lattice towers. It will be located to the south of the existing Beauldy-Denny OHL, that is, between the new substation platform and the Fanellan road. The construction of the new Proposed Development will also require the removal of 4 existing suspension towers, two of which will be replaced by angle towers.
- 1.5.7 The existing OHL has two earth wires on the top and three phase conductors in a transposed format each circuit has 3 phases, transposed is two circuits on one side of the tower and one on the other side, as opposed to all phases belonging to a circuit being on the same side of the tower).
- 1.5.8 The Proposed Development will be built using the same technology as has been used on the circuit previously, with a single earth wire on top and three phases, with two conductors per phase. The arrangement of the circuits will match the existing.

## 1.6 Construction Programme

- 1.6.1 It is anticipated that construction of the Proposed Development would take place over several months (approximately nine), following the granting of consents, although a detailed programming of works would be the responsibility of the Principal Contractor in agreement with SSEN Transmission.
- 1.6.2 Construction is estimated to start in Q2 2026 with completion in Q3 2027 and completion to include the down leads into the proposed Fanellan 400 KV Substation by Q4 2030, however this is subject to formalisation by the Principal Contractor.

## 1.7 Construction Practices and Phasing

### *Phase 1 – Enabling Works*

#### Distribution

- 1.7.1 Works will be required to the existing distribution network infrastructure which are crossed by the new access track (shared with the proposed Fanellan 400 kV Hub).

#### Road Improvements and Access

- 1.7.2 Access would be required to each tower for delivery of materials, fittings, fixtures, working platforms and plant. Access requirements to each tower would depend on the tower type and the operations required at the tower.
- 1.7.3 There will be new shared access tracks with the proposed Fanellan 400kV Hub (included in that separate planning application 25/00826/FUL) and some new access tracks specific for the OHL diversion works. These are illustrated in the application site plan.
- 1.7.4 Existing tower access routes utilised by the Applicant's operation and maintenance teams would be used whenever possible. Many individual tower sites would be accessible from public roads and farm/ forestry tracks, via the addition of the new access tracks and in such circumstances normal site vehicles such as 4x4 Hiab wagons, transit vans, 4x4 pickup trucks, quad bikes and tractors would be utilised.
- 1.7.5 Where there are no public roads or farm tracks, should ground conditions permit, it may be possible in dry weather for the vehicle types indicated above to gain access to certain sites without causing ground surface damage. If damage is likely, it may be necessary to undertake access upgrades to allow the use of the above vehicles, or to use specialist low ground bearing pressure vehicles.
- 1.7.6 Access upgrades and ground protection can be undertaken in a number of ways. The preferred method for each site would be selected by the Principal Contractor based on the suitability to withstand expected construction loads, cause the least environmental damage, and be installed/ recovered at the lowest cost. Measures to mitigate the potential impact of each type of access have been addressed in the EA Report, in general terms. The range of construction access options likely to be considered include:
  - installation of temporary metal or plastic roadway panels (e.g. Trakway);
  - installation of temporary stone roads on a geo-textile fabric base;
  - upgrading of existing access tracks;
  - use of specialised low ground bearing pressure vehicles; or



- installation or modification of permanent access track routes to new (strategic) tower locations to assist with ongoing operation, maintenance and repair of the proposed asset, and where land use/land management activities can accommodate or benefit from this.

#### Site Compounds

- 1.7.7 There are several areas for compounds and laydown that will facilitate construction works (including office provision). These have been included in the associated proposed Fanellan 400kV Hub application (25/00826/FUL) as they will be used by other contractors prior to / after the OHL diversion contractor. One area is located to the East of the associated Fanellan 400kV Hub Site and a second is located to the South of the diversion (and South of the associated Fanellan 400kV Hub site). Potential impacts from the compounds will be minimised and controlled via the CEMP, which will be prepared and implemented by the Principal Contractor.
- 1.7.8 The obtaining of any necessary planning consent or other authorisations required for any additional site compounds, should any be required, will be the responsibility of the Principal Contractor.

#### Tower Foundations

- 1.7.9 Different approaches to forming foundations may be used, subject to ground conditions at each tower location. These are likely to comprise:
- spread type e.g. concrete pad and chimney; or
  - piled type e.g. driven concrete, tube and micro pile; or augured.
- 1.7.10 Foundation types and designs for each tower will be confirmed following detailed geotechnical investigation at each tower position which is ongoing. All tower positions will require foundations at each leg. The foundation type is expected to be a combination of conventional (concrete pad and chimney) and piled type. This assumption is based on an initial geotechnical desktop survey and the anticipated different construction methodologies required due to the varying terrain. Dimensions of pad and chimney foundations will be confirmed following micro-siting but usually consist of formation to depths of between 2.5 m and 4 m below ground level and will typically be in the order of 5 m x 5 m in plan size for each tower leg. The structure footprint for each tower, i.e. the area of the tower base bounded by the four legs, is presented in the EA Appendix C Tower Schedule.
- 1.7.11 Where ground conditions indicate deep peat (>1.5 m/2.0 m) or near surface rock, mini-piles and rock anchors may be more appropriate engineering solutions. Mini-pile solutions typically involve installing up to six piles (each between 150 mm and 300 mm diameter) below each tower leg. The piles are encompassed within a near surface pile cap, upon which the tower leg rests. The piles normally extend into the existing bedrock to satisfy both compression and uplift design loadings. Pile depths can extend up to 25 m. Where near surface rock is evident, rock anchors are normally employed. Rock anchors do not require a sacrificial caisson<sup>2</sup>, and the pile cap normally rests on the bedrock. The pile cap is secured to the bedrock by interconnecting mini-piles.
- 1.7.12 For the purposes of the HRA Screening Report, it has been assumed that individual tower foundations and associated construction activities will require a working area of approximately 2,500 m<sup>2</sup> (50 m x 50 m) around each individual tower location for a crane build. The exact dimensions of the working area around each tower will be confirmed following micro-siting and further design by the Principal Contractor.

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<sup>2</sup> Caisson foundations are similar in form to pile foundations but are installed using a different method. It is used when soil of adequate bearing strength is found below surface layers of weak materials such as fill or peat. It is a form of deep foundation which are constructed above ground level, then sunk to the required level by excavating or dredging material from within the caisson.



- 1.7.13 Where encountered, topsoil (including peat) will be stripped from the tower working area to allow installation of tower erection pad(s) as necessary in order to accommodate construction plant. Concrete is likely to be brought to site ready-mixed. Once the concrete has been cast and set, the excavation will be backfilled, using the original excavated material where possible.
- 1.7.14 It is anticipated that formation of each tower foundation will take approximately four weeks.

#### Tower Construction

- 1.7.15 Tower construction can commence two weeks after the foundations have been cast, subject to weather conditions and concrete curing rates. Tower steelwork will be delivered to each tower construction site either as individual steel members or as prefabricated panels, depending on the method of installation and the available access.
- 1.7.16 If a crane is to be used for tower erection the size of the construction area adjacent to the tower will typically be approximately 50 m x 50 m. This will accommodate a crane pad formed alongside the position of the tower. This is constructed out of crushed stone, geogrid and geotextiles to form a level stable base on which the crane can safely work.
- 1.7.17 Once the foundations and lower tower section have been constructed, the top section of the structure is built on the ground at the site before being lifted into position by telehandler or crane.

#### Conductor Stringing

- 1.7.18 Prior to stringing the conductors, a short closure of the new shared access track will be required to pull the conductors across the track, this would be less disruptive to erecting scaffolding which would require tree clearance and ground levelling to erect the scaffolding. The track closure will only affect site operations and will not impact local road access.
- 1.7.19 Conductor stringing equipment (i.e. winches, tensioners and ancillary equipment) are set out at Equi-Potential Zones (EPZs) at either end of the OHL. They are usually placed approximately one tower height from the angle or terminal tower. The principle is to retain EPZ landforms, although there is potential to landscape these areas; they have been considered to be permanent features for the purpose of this assessment.
- 1.7.20 Pilot wires will be pulled through the section to be strung. These will be hung on blocks (wheels) at each suspension tower and connected to a winch and tensioner at the respective end of the section. The winch, in conjunction with the tensioner is used to pull the pilot wires between the structures. The conductor is pulled via the pilot wires through the section under tension to avoid contact with the ground and any underrunning obstacles. Once the conductor has been strung between the ends of the section, it is then tensioned and permanently clamped at each tower.

#### Watercourse Crossings

- 1.7.21 A new access track will be built to service both the associated proposed Fanellan 400 kV Hub and the Proposed Development. This access track will cross over one watercourse. This watercourse crossing will be culverted (using a bottomless arch culvert), allowing the access to the sites, the watercourse bed to remain natural and the natural water flow downhill to be maintained.

#### *Phase 3 – Commissioning*

- 1.7.22 The proposed OHL alignment and support towers will then be subject to an inspection and snagging process. This allows the Principal Contractor and SSEN Transmission to check that the works have been built to specification and are fit to energise. The Proposed Development will also go through a commissioning procedure for the switchgear, communications and protection controls through the

substation before the circuits will be energised and the proposed OHL alignment becomes operational.

#### *Phase 4 – Dismantling the section of existing OHL*

- 1.7.23 Two of the existing OHL towers (7 and 8) will form part of the temporary diversion and then be dismantled following construction and use of the proposed temporary OHL diversion to allow construction of the proposed Fanellan 400 kV Hub.
- 1.7.24 The existing line sections would be decommissioned, conductors would be removed, towers dismantled, and the upper part of foundations removed on the existing lines.
- 1.7.25 Removal of conductors would be carried out as the reverse process of reconductoring operations. Winch and tensioner positions would need to be established to reel in the conductors.
- 1.7.26 Towers are generally dismantled by felling and breaking up with an excavator mounted hydraulic cutter or by hand with a blowtorch. Where felling may cause damage, it may be necessary to dismantle by crane in manageable panels which can then be broken up on the ground. The steel is bundled on site and removed by tractor and trailer or dumper to a central store for bulk removal. Insulator strings are taken to a large skip at the main store for separate disposal.
- 1.7.27 Existing concrete foundations outwith the associated proposed Fanellan 400 kV Hub would be broken down to a depth of approximately 1 m below ground level and stubs cut off. Waste material would be removed from site using a licensed waste carrier and deposited at a licensed site.

#### *Phase 5 – Reinstatement*

- 1.7.28 Following commissioning of the Proposed Development, all construction sites will be reinstated or developed as part of the adjacent proposed Fanellan Substation. Reinstatement will form part of the contract obligations for the Principal Contractor and will include the removal of all temporary access tracks and all work sites around the tower locations.

### **1.8 Construction Employment and Hours of Work**

- 1.8.1 SSEN Transmission takes community responsibilities seriously. The delivery of a major programme of capital investment provides the opportunity to maximise support of local communities.
- 1.8.2 Employment of construction staff will be the responsibility of the Principal Contractor, but SSEN Transmission encourages the Principal Contractor to make use of suitable labour and resources from areas local to the location of the works.
- 1.8.3 Construction working hours are anticipated seven days a week between 07:00 to 19:00, January to December. Any out of hours working would be agreed in advance. During the commissioning phase there may be a requirement for 24 hours a day, seven days a week working and potential for out of hours working. These working hours are subject to approval from the Energy Consents Unit (ECU) and The Highland Council.

### **1.9 Construction Traffic**

- 1.9.1 Construction of the Proposed Development will give rise to regular numbers of staff transport movements, with small work crews travelling to and from work site areas. The construction compound would have a safe area for parking away from public roads.
- 1.9.2 Construction traffic will be required for the purposes of transporting workers, plant and machinery and materials to and from Site.

- 1.9.3 The Principal Contractor would determine where access is required, and for which items of plant, and prepare a final Construction Traffic Management Plan in consultation with the Principal Contractor for the associated proposed Fanellan 400 kV Hub, SSEN Transmission, the ECU and the local authority. Traffic Management Plans would describe all mitigation and signage measures that are proposed on the public road accesses based on access maps and subsequent site assessments.

## **1.10 Habitats Regulations Appraisal**

1.10.1 The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) (hereafter, the 'Habitats Regulations')<sup>3</sup> place a duty upon 'Competent Authorities', to consider the potential for Likely Significant Effects (LSE) upon European sites arising from projects or plans. European sites considered through HRA are Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), as well as those currently proposed for designation. Wetlands of International Importance (Ramsar sites) are also considered through HRA.

1.10.2 In accordance with guidance on the interpretation of the Habitats Directive<sup>4</sup> there are four distinct stages of assessment, collectively known as HRA:

- Stage 1, Screening: the process which identifies whether effects upon a European site of a plan or project are possible, either alone or in combination with other plans or projects and considers whether these effects are likely to be significant.
- Stage 2, Appropriate Assessment: the detailed consideration of the effect on the integrity of the European site of the plan or project, either alone or in combination with other plans or projects, with respect to the site's conservation objectives and its structure and function.
- Stage 3, Assessment of alternative solutions: the process which examines alternative ways of achieving the objectives of the plan or project that avoid adverse effects on the integrity of the European site.
- Stage 4: Assessment where no alternative solutions exist and where adverse effects remain: an assessment of whether the development is necessary for imperative reasons of overriding public interest (IROPI) and, if so, of the compensatory measures needed to maintain the overall coherence of the European site network.

1.10.3 This report represents Stage 1 and 2 of the above process: HRA Screening and Appropriate Assessment which provides information to allow the Competent Authority to consider if there are effect pathways leading to LSE (Stage 1) and then consider potential effects on Site Integrity (Stage 2). For the Proposed Development the Competent Authority will be the Energy Consents Unit (ECU).

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<sup>3</sup> The Conservation (Natural Habitats, &c.) Regulations 1994. [Online] Available at: <https://www.legislation.gov.uk/uksi/1994/2716/contents/made> [Accessed: June 2024].

<sup>4</sup> The Habitats Directive. European Commission 1994 (as amended). [Online] Available at: [https://environment.ec.europa.eu/topics/nature-and-biodiversity/habitats-directive\\_en](https://environment.ec.europa.eu/topics/nature-and-biodiversity/habitats-directive_en) [Accessed: June 2024].

## 2. RELEVANT EUROPEAN SITES AND BASELINE INFORMATION

### 2.1 European Sites

2.1.1 A search for European sites based on the search parameters defined in **Section 2.2** identified nine European sites which are listed below:

- Inner Moray Firth SPA and Ramsar (4.4 km north-east);
- Moray Firth SPA (6.2 km north-east);
- Moniack Gorge SAC (7 km east);
- Strathglass Complex SAC (8.5 km west);
- Moray Firth SAC (9.3 km east);
- Glen Affric to Strathconon SPA (9.4 km west);
- Conon Islands SAC (10 km north);
- North Inverness Lochs SPA (8.9 km south); and
- Cromarty Firth SPA and Ramsar (14 km north-east).

2.1.2 Details of the European sites are provided Table 2-1 European Site Information below. The location of the European sites relative to the Site is shown in the in **Annex A, Figure 1: HRA Screening Relevant European Sites**.

**Table 2-1 European Site Information**

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
<b>Inner Moray Firth (SPA)</b>	<p>Qualifies under Article 4.1 by regularly supporting populations of European importance of the Annex 1 species:</p> <ul style="list-style-type: none"> <li>osprey <i>Pandion haliaetus</i> forage throughout the SPA (2008 to 2012, up to 25 territories within feeding range, 12.5% of the GB population, with 4 pairs breeding within the site, 4% of the GB population);</li> <li>common tern <i>Sterna hirundo</i> (310 pairs, 2% of the GB population); and</li> <li>bar-tailed godwit <i>Limosa lapponica</i> (1992/93 to 1996/97 a winter peak mean of 1,090 individuals, 2% of the GB population).</li> </ul> <p>The Inner Moray Firth SPA further qualifies under Article 4.2 by regularly supporting populations of European importance of the migratory species (1992/93 to 1996/97 winter peak means):</p> <ul style="list-style-type: none"> <li>greylag goose <i>Anser anser</i> 2,651 individuals, 3% of the Iceland/UK/Ireland biogeographic population);</li> <li>red-breasted merganser <i>Mergus serrator</i> (1,184 individuals, 1% of the NW &amp; Central Europe biogeographic population); and</li> <li>redshank <i>Tringa totanus</i> (1,621 individuals, 1% of the Eastern Atlantic biogeographic population)</li> </ul> <p>Inner Moray Firth SPA also qualifies under Article 4.2 by regularly supporting in excess of 20,000 individual waterfowl. Between 1992/93 to 1996/97 a winter peak mean of 26,800 individual waterfowl comprising 16,800 wildfowl and 10,000 waders including nationally important populations of the following species:</p> <ul style="list-style-type: none"> <li>greater scaup <i>Aythya marila</i> (118 individuals, 1% of the GB population); curlew <i>Numenius arquata</i> (1,262 individuals, 1% of the GB population);</li> <li>goosander <i>Mergus merganser</i> (325 individuals, 4% of the GB population);</li> </ul>	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> <li>Population of the species as a viable component of the site;</li> <li>Distribution of the species within site;</li> <li>Distribution and extent of habitats supporting the species;</li> <li>Structure, function and supporting processes of habitats supporting the species; and</li> <li>No significant disturbance of the species.</li> </ul>	<p>Osprey– favourable</p> <p>Common tern – unfavourable</p> <p>Bar-tailed godwit – favourable</p> <p>Curlew–favourable</p> <p>Cormorant–unfavourable</p> <p>Curlew–favourable</p> <p>Goldeneye–favourable</p> <p>Goosander–unfavourable</p> <p>Greylag goose– favourable</p> <p>Oystercatcher–favourable</p> <p>Red-breasted merganser– unfavourable</p> <p>Redshank–favourable</p> <p>Scaup–favourable</p> <p>Teal–favourable</p> <p>Waterfowl assemblage– favourable</p> <p>Wigeon– favourable</p>

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
	<ul style="list-style-type: none"> <li>goldeneye <i>Bucephala clangula</i> (218 individuals, 1% of the GB population); teal <i>Anas crecca</i> (2,066 individuals, 1% of the GB population);</li> <li>widgeon <i>Anas penelope</i> (7,310 individuals, 3% of the GB population);</li> <li>cormorant <i>Phalacrocorax carbo</i> (409 individuals, 3% of the GB population);</li> <li>redshank (1,621 individuals, 1% of the GB population);</li> <li>red-breasted merganser (1,184 individuals, 12% of the GB population);</li> <li>greylag goose (2,651 individuals, 3% of the GB population) and bar-tailed godwit (1,090 individuals).</li> </ul> <p>In the five-year period 1991/92 to 1995/96, a winter peak mean of 33,148 individual waterfowl was recorded with the assemblage additionally including a nationally important population, greater than 2,000 individuals, of oystercatcher <i>Haematopus ostralegus</i> (3,063 individuals, 0.9% of the GB population).</p>		
<b>Inner Moray Firth Ramsar</b>	<p>Qualifies under Ramsar Criterion 1 by virtue of it containing a variety of wetland types:</p> <ul style="list-style-type: none"> <li>Intertidal mudflats and sandflats supporting areas of saltmarsh are exceptionally well represented throughout the Inner Moray Firth. On the Beaully Firth a large area of saltmarsh covers the mudflats and sandflats. The bays at Munlochy, Longman and Castle Stuart are particularly dominated by extensive mudflats. Of specific importance are the large and dense eelgrass <i>Zostera</i> spp. beds.</li> <li>At Whiteness Head, there are sand dunes and a shingle bar. The shingle bar encloses a building intertidal system including, sandflats and associated saltmarsh. Sand dunes and further extensive areas of sandflats, lie to the south west of the bar.</li> </ul> <p>Qualifies under Ramsar Criterion 2 by supporting:</p>	None listed. For birds the SPA conservation objectives will be used	None listed. For birds the SPA condition assessment will be used

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
	<ul style="list-style-type: none"> <li>osprey forage throughout the Ramsar site (2008 to 2012, up to 25 territories within feeding range, 12.5% of the GB population, with 4 pairs breeding within the site, 4% of the GB population); and</li> <li>common tern (310 pairs, 2% of the GB population).</li> </ul> <p>Qualifies under Ramsar Criterion 5 by regularly supporting waterbirds in numbers of 20,000 individuals or more. The site also qualifies under Ramsar Criterion 4 by supporting the following waterbird species at a critical stage in their life cycles:</p> <ul style="list-style-type: none"> <li>greater scaup (118 individuals, 1% of the GB population).</li> <li>curlew (1,262 individuals, 1% of the GB population).</li> <li>goosander (325 individuals, 4% of the GB population).</li> <li>goldeneye (218 individuals, 1% of the GB population).</li> <li>teal (2,066 individuals, 1% of the GB population).</li> <li>wigeon (7,310 individuals, 3% of the GB population), and</li> <li>cormorant (409 individuals, 3% of the GB population).</li> </ul> <p>Qualifies under Ramsar Criterion 6 by regularly supporting 1% or more of the individuals in a population of waterbirds (1992/93 to 1996/97, winter peak means):</p> <ul style="list-style-type: none"> <li>bar-tailed godwit (1,090 individuals, 1% of the Western European biogeographic population).</li> <li>greylag goose (2,651 individuals, 3% of the Iceland/UK/Ireland biogeographic population).</li> <li>red-breasted merganser (1,184 individuals, 1% of the NW &amp; Central Europe biogeographic population), and</li> <li>redshank (1,621 individuals, 1% of the Eastern Atlantic biogeographic population).</li> </ul>		
<b>Moray Firth SPA</b>	Qualifies under Article 4.1 by regularly supporting a non-breeding population of European importance of the following Annex 1 species:	To ensure that the qualifying features of the Moray Firth SPA are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.	Great northern diver – favourable Red-throated diver – favourable



Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
	<ul style="list-style-type: none"> <li>great northern diver <i>Gavia immer</i> (a mean peak annual non-breeding population of 144 individuals (5.8% of the Great Britain population);</li> <li>red-throated diver <i>Gavia stellata</i> (a mean peak annual non-breeding population of 324 individuals (1.9% of the Great Britain population); and</li> <li>Slavonian grebe <i>Podiceps auritus</i> (a mean peak annual non-breeding population of 43 individuals (3.9% of the Great Britain population).</li> </ul> <p>The site further qualifies under Article 4.2 by regularly supporting populations of European importance of the following migratory species:</p> <ul style="list-style-type: none"> <li>greater scaup (a mean peak annual non-breeding population of 930 individuals (17.9% of the Great Britain population) for the years 2001/02 to 2005/06);</li> <li>common eider <i>Somateria mollissima</i> (a mean peak annual non-breeding population of 1,733 individuals (2.9% of the Great Britain population) for the years of 2001/02 to 2006/07);</li> <li>long-tailed duck <i>Clangula hyemalis</i> (a mean peak annual non-breeding population of 5,001 individuals (45.5% of the Great Britain population) for the years of 2001/02 to 2005/6);</li> <li>common scoter <i>Melanitta nigra</i> (a mean peak annual non-breeding population of 5,479 individuals (5.5% of the Great Britain population) for the years 2001/02 to 2005/06);</li> <li>velvet scoter <i>Melanitta fusca</i> (a mean peak annual non-breeding population of 1,488 individuals (59.5% of the Great Britain population) for the years 2001/02 to 2005/06);</li> <li>common goldeneye (a mean peak annual non-breeding population of 907 individuals (4.5% of the Great Britain population) for the years 2001/02 to 2005/06);</li> </ul>	<p>To ensure that the integrity of the Moray Firth SPA is restored in the context of environmental changes by meeting the following objectives:</p> <ul style="list-style-type: none"> <li>The populations of qualifying features are viable components of the site.</li> <li>The distribution of the qualifying features is maintained throughout the site by avoiding significant disturbance of the species.</li> <li>The supporting habitats and processes relevant to qualifying features and their prey resources are maintained, or where appropriate restored, at the Moray Firth SPA.</li> </ul>	<p>Slavonian grebe – favourable</p> <p>Common scoter–favourable</p> <p>Eider–favourable</p> <p>Goldeneye–unfavourable</p> <p>Long-tailed duck–favourable</p> <p>Red-breasted merganser–favourable</p> <p>Scaup – unfavourable</p> <p>Shag (breeding)– favourable</p> <p>Shag (non-breeding)– favourable</p> <p>Velvet scoter–unfavourable</p>

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
	<ul style="list-style-type: none"> <li>red-breasted merganser (a mean peak annual non-breeding population of 151 individuals (1.8% of the Great Britain population) for the years of 2001/02 to 2005/06); and</li> <li>European shag <i>Phalacrocorax aristotelis</i> (at least 6,462 individuals during the non-breeding season (3.2% of the biogeographic population and 5.9% of the Great Britain population) and 5,494 individuals during the breeding season ((2.7% of the biogeographic population &amp; 10.2% of the Great Britain population) for the years 1980-2006).</li> </ul>		
<b>Moniack Gorge (SAC)</b>	Qualifies for presence of an Annex II species, one of only three UK sites where green shield-moss <i>Buxbaumia viridis</i> has been recorded in recent years.	<ul style="list-style-type: none"> <li>To ensure that the qualifying feature of Moniack Gorge SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status.</li> <li>To ensure that the integrity of Moniack Gorge SAC is maintained.</li> <li>Maintain the population of the species as a viable component of the site.</li> <li>Maintain the distribution of the species throughout the site.</li> <li>Maintain the habitats supporting the species within the site</li> </ul>	Green shield-moss– favourable
<b>Moray Firth SAC</b>	The Moray Firth SAC has been designated to protect bottlenose dolphin <i>Tursiops truncatus</i> and subtidal sandbanks.	<ul style="list-style-type: none"> <li>To ensure that the qualifying features of Moray Firth SAC are in favourable condition and make an appropriate contribution to achieving Favourable Conservation Status.</li> <li>To ensure that the integrity of Moray Firth SAC is maintained or restored in the context of environmental changes by meeting objectives 2a, 2b and 2c for each qualifying feature.</li> </ul> <p>For subtidal sandbanks:</p>	<p>Subtidal sandbanks– Favourable Maintained Bottle-nosed dolphin– Favourable Maintained</p>

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
		<ul style="list-style-type: none"> <li>2a. Extent and distribution of the habitat within the site.</li> <li>2b. Structure and function of the habitat and the supporting environment on which it relies.</li> <li>2c. Distribution and viability of typical species of the habitat.</li> </ul> <p>For bottlenose dolphin:</p> <ul style="list-style-type: none"> <li>2a. The population of bottlenose dolphin is a viable component of the site.</li> <li>2b. The distribution of bottlenose dolphin throughout the site is maintained by avoiding significant disturbance.</li> <li>2c. The supporting habitats and processes relevant to bottlenose dolphin and the availability of prey for bottlenose dolphin are maintained.</li> </ul>	
<b>Glen Affric to Strathconon SPA</b>	Qualifies under Article 4.1 by regularly supporting a population of European importance of the Annex 1 species golden eagle <i>Aquila chrysaetos</i> (10 active territories in 2003, 2.2% of the GB population).	<ul style="list-style-type: none"> <li>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</li> <li>To ensure for the qualifying species that the following are maintained in the long term: <ul style="list-style-type: none"> <li>Population of the species as a viable component of the site</li> <li>Distribution of the species within site</li> <li>Distribution and extent of habitats supporting the species</li> <li>Structure, function and supporting processes of habitats supporting the species; and</li> </ul> </li> </ul>	Golden eagle - favourable

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
		<ul style="list-style-type: none"> <li>No significant disturbance of the species.</li> </ul>	
<b>Conon Islands SAC</b>	Alluvial forests with alder <i>Alnus glutinosa</i> and ash <i>Fraxinus excelsior</i>	<ul style="list-style-type: none"> <li>To ensure that the qualifying feature of Conon Islands SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status.</li> <li>To ensure that the integrity of Conon Islands SAC is maintained.</li> <li>Maintain the population of the species as a viable component of the site.</li> <li>Maintain the distribution of the species throughout the site.</li> <li>Maintain the habitats supporting the species within the site</li> </ul>	Alder woodland on floodplains-Unfavourable No Change
<b>North Inverness Lochs SPA</b>	<p>Qualifies under Article 4.1 by regularly supporting a population of European Importance of the Annex 1 species:</p> <ul style="list-style-type: none"> <li>Slavonian grebe (1991 to 1995, 7 pairs, 12% of the GB population).</li> </ul>	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p> <p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> <li>Population of the species as a viable component of the site;</li> <li>Distribution of the species within site Distribution and extent of habitats supporting the species;</li> <li>Structure, function and supporting processes of habitats supporting the species; and</li> <li>No significant disturbance of the species.</li> </ul>	Slavonian grebe - favourable

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
<b>Strathglass Complex SAC</b>	<p>Qualifying features include:</p> <ul style="list-style-type: none"> <li>Three priority habitats: blanket bogs, bog woodland, and Caledonian forest;</li> <li>Alpine and Boreal heaths;</li> <li>Calcareous rocky slopes with chasmophytic vegetation;</li> <li>European dry heaths;</li> <li>Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels;</li> <li>Northern Atlantic wet heaths with <i>Erica tetralix</i>;</li> <li>Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>;</li> <li>Presence of European otter <i>Lutra lutra</i>;</li> <li>Siliceous alpine and boreal grasslands;</li> <li>Siliceous rocky slopes with chasmophytic vegetation;</li> <li>Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>); and</li> <li>Sub-Arctic <i>Salix</i> spp. scrub.</li> </ul>	<ul style="list-style-type: none"> <li>To ensure that the qualifying features of Strathglass Complex SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status; and</li> <li>To ensure that the integrity of Strathglass Complex SAC is restored by meeting the following objectives for each qualifying feature: <ul style="list-style-type: none"> <li>Maintain the extent and distribution of the habitat within the site;</li> <li>Maintain the structure, function and supporting processes of the habitat; and</li> <li>Maintain the distribution and viability of typical species of the habitat.</li> </ul> </li> </ul>	<p>Clear-water lakes – Favourable</p> <p>Wet heathland with cross-leaved heath – unfavourable/recovering</p> <p>Dry heaths – unfavourable/recovering</p> <p>Alpine and subalpine heaths – unfavourable/recovering</p> <p>Mountain willow scrub – unfavourable/recovering</p> <p>Montane acid grasslands – favourable</p> <p>Tall herb communities – favourable</p> <p>Blanket bog – unfavourable/recovering</p> <p>Acidic scree – favourable</p> <p>Plants in crevices on acid rocks - favourable</p> <p>Plants in crevices on base-rich rocks – favourable</p> <p>Caledonian forest – unfavourable</p> <p>Bog woodland – favourable</p> <p>Otter - favourable</p>
<b>Cromarty Firth SPA</b>	<p>Qualifies under Article 4.1 by regularly supporting populations of European importance of the Annex 1 species:</p> <ul style="list-style-type: none"> <li>osprey forage throughout the SPA (2008 to 2012, five year mean of up to 25 territories within feeding range, 12.5% of the GB</li> </ul>	<p>To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained; and</p>	<p>Osprey - favourable</p> <p>Common tern - unfavourable</p> <p>Whooper swan - favourable</p> <p>Bar-tailed godwit – favourable</p>

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
	<p>population, with one pair breeding within the site, 1% of the GB population);</p> <ul style="list-style-type: none"> <li>• common tern (1989 to 1993 mean of 294 pairs; 2% of the GB population);</li> <li>• whooper swan <i>Cygnus cygnus</i> (1992/93 to 1996/97 winter peak mean of 64 individuals, 1% of the GB population); and</li> <li>• bar-tailed godwit (1,355 wintering individuals, 3% of the GB population).</li> </ul> <p>Qualifies under Article 4.2 by regularly supporting a population of European importance of the migratory species:</p> <ul style="list-style-type: none"> <li>• greylag goose (1992/93 to 1996/97 winter peak mean of 1,782 individuals; 2% of the Iceland/UK/Ireland biogeographic population).</li> </ul> <p>Also qualifies under Article 4.2 by regularly supporting in excess of 20,000 individual waterfowl:</p> <ul style="list-style-type: none"> <li>• redshank (1,149 individuals, 1% of the GB population);</li> <li>• curlew (1,313 individuals, 1% of the GB population);</li> <li>• knot <i>Calidris canutus</i> (4,312 individuals, 1% of the GB population);</li> <li>• red-breasted merganser (204 individuals, 2% of the GB population);</li> <li>• greater scaup (295 individuals, 3% of the GB population);</li> <li>• pintail <i>Anas acuta</i> (319 individuals, 1% of the GB population);</li> <li>• wigeon (9,204 individuals, 3% of the GB population); <ul style="list-style-type: none"> <li>• dunlin <i>Calidris alpina</i> (3,384 individuals, 0.6% of the GB population); and</li> </ul> </li> <li>• oystercatcher (2004/5 to 2009/10, 2,702 individuals, 0.8% of the GB population).</li> </ul>	<p>To ensure for the qualifying species that the following are maintained in the long term:</p> <ul style="list-style-type: none"> <li>• Population of the species as a viable component of the site;</li> <li>• Distribution of the species within site Distribution and extent of habitats supporting the species;</li> <li>• Structure, function and supporting processes of habitats supporting the species; and</li> <li>• No significant disturbance of the species.</li> </ul>	<p>Greylag goose – unfavourable/recovering</p> <p>Redshank – favourable/recovering</p> <p>Curlew - favourable</p> <p>Knot - unfavourable</p> <p>Red-breasted merganser - unfavourable</p> <p>Scaup – favourable/recovering</p> <p>Pintail - favourable</p> <p>Wigeon – favourable/recovering</p> <p>Dunlin - favourable</p> <p>Oystercatcher - favourable</p>

Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
<b>Cromarty Firth Ramsar</b>	<p>Qualifies under Ramsar Criterion 1 by virtue of it containing a variety of wetland types:</p> <ul style="list-style-type: none"> <li>• Intertidal mudflats (with extensive eelgrass beds), the largest expanse in the Moray Basin ecosystem.</li> <li>• At the mouth of the River Conon, a rare surviving example of a transition from estuarine alder woodland, through open water transition fen and finally, where salinity and tidal influences increase, to saltmarsh.</li> </ul> <p>Qualifies under Ramsar Criterion 2 by supporting:</p> <ul style="list-style-type: none"> <li>• Osprey forage throughout the Ramsar site (2008 to 2012, five year mean of up to 25 territories within feeding range, 12.5% of the GB population, with 1 pair breeding within the site, 1% of the GB population);</li> <li>• Common tern (1989 to 1993, mean of 294 pairs; 2% of the GB population); and</li> <li>• Whooper swan (1992/93 to 1996/97 winter peak mean of 64 individuals, 1% of the GB population).</li> </ul> <p>Qualifies under Ramsar Criterion 5 by regularly supporting waterbirds in numbers of 20,000 individuals or more:</p> <ul style="list-style-type: none"> <li>• Redshank (1,149 individuals, 1% of the GB population).</li> <li>• Curlew (1,313 individuals, 1% of the GB population).</li> <li>• Knot (4,312 individuals, 1% of the GB population).</li> <li>• Red-breasted merganser (204 individuals, 2% of the GB population).</li> <li>• Scaup (295 individuals, 3% of the GB population).</li> <li>• Pintail (319 individuals, 1% of the GB population), and</li> <li>• Wigeon (9,204 individuals, 3% of the GB population).</li> </ul> <p>Qualifies under Ramsar Criterion 6 by regularly supporting 1% or more of the individuals in a population of waterbirds:</p>	None listed. For birds the SPA conservation objectives will be used	None listed. For birds the SPA condition assessment will be used



Site & Description	Qualifying Interests	Conservation Objectives	Condition Assessment
	<ul style="list-style-type: none"> <li>• Greylag goose (1992/93 to 1996/97 winter peak mean of 1,782 individuals; 2% of the Iceland/UK/Ireland biogeographic population); and</li> <li>• Bar-tailed godwit (1,355 wintering individuals, 1% of the Western European biogeographic population).</li> </ul>		

## 2.2 Potential LSE and Defining Ecological Zone of Influence

- 2.2.1 Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines<sup>5</sup> define the Ecological Zone of Influence (EZoI) as the area over which ecological features may be subject to significant effects due to the Proposed Development. This could extend beyond the footprint of the Proposed Development.
- 2.2.2 There are several EZoIs to consider depending on the potential LSEs in question. Many of the qualifying species of the European sites and certain LSEs are not considered relevant to the Proposed Development and have been scoped out. The rationale for scoping out is provided in **Section 2.4**. All qualifying interests not listed in Section 2.4. have been scoped in, the following LSEs, species, and respective EZoIs are considered most relevant to the Proposed Development based on habitats within and surrounding the Site:
- disturbance/displacement of qualifying species from the Site and adjacent areas – visual and acoustic disturbance from the movement of plant and equipment, operation of plant, and blasting operations.
- 2.2.3 The EZoI for this LSE will be:
- 600 m for greylag goose based on the predicted maximum disturbance/displacement distance<sup>6</sup> from foraging for this qualifying species from the relevant European sites.
  - 750 m for osprey based on the predicted maximum disturbance/displacement distance<sup>6</sup> from a nest site.
  - 200 m for otter based on the maximum predicted disturbance distance to an otter resting site, this maximum distance is for breeding holts<sup>7</sup>.
  - reduction in Functionally Linked Land (FLL) that supports qualifying species. The maximum distance considered over which species may travel to forage within and near the Site is 20 km based on the predicted maximum foraging range of qualifying species (osprey) for the relevant European sites<sup>8, 9</sup>.

## 2.3 Relevant Field Surveys and Desk Study Information

- 2.3.1 Data from the baseline surveys and desk study to inform the Environmental Appraisal (EA) for the Proposed Development is provided where it comprises data involving species which are qualifying interests of the relevant European sites.

<sup>5</sup> CIEEM (2024). Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine. Version 1.3.CIEEM, Winchester.

<sup>6</sup> Goodship, N.M. and Furness, R.W. (MacArthur Green) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283. <https://www.nature.scot/doc/naturescot-research-report-1283-disturbance-distances-review-updated-literature-review-disturbance#Black-throated+diver,+Gavia+arctica>.

<sup>7</sup> Nature Scot Website. <https://www.nature.scot/doc/standing-advice-planning-consultations-otters>.

<sup>8</sup> Mitchell, C. (2012). Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. Wildfowl & Wetlands Trust / SNH report, Slimbridge. 108pp.

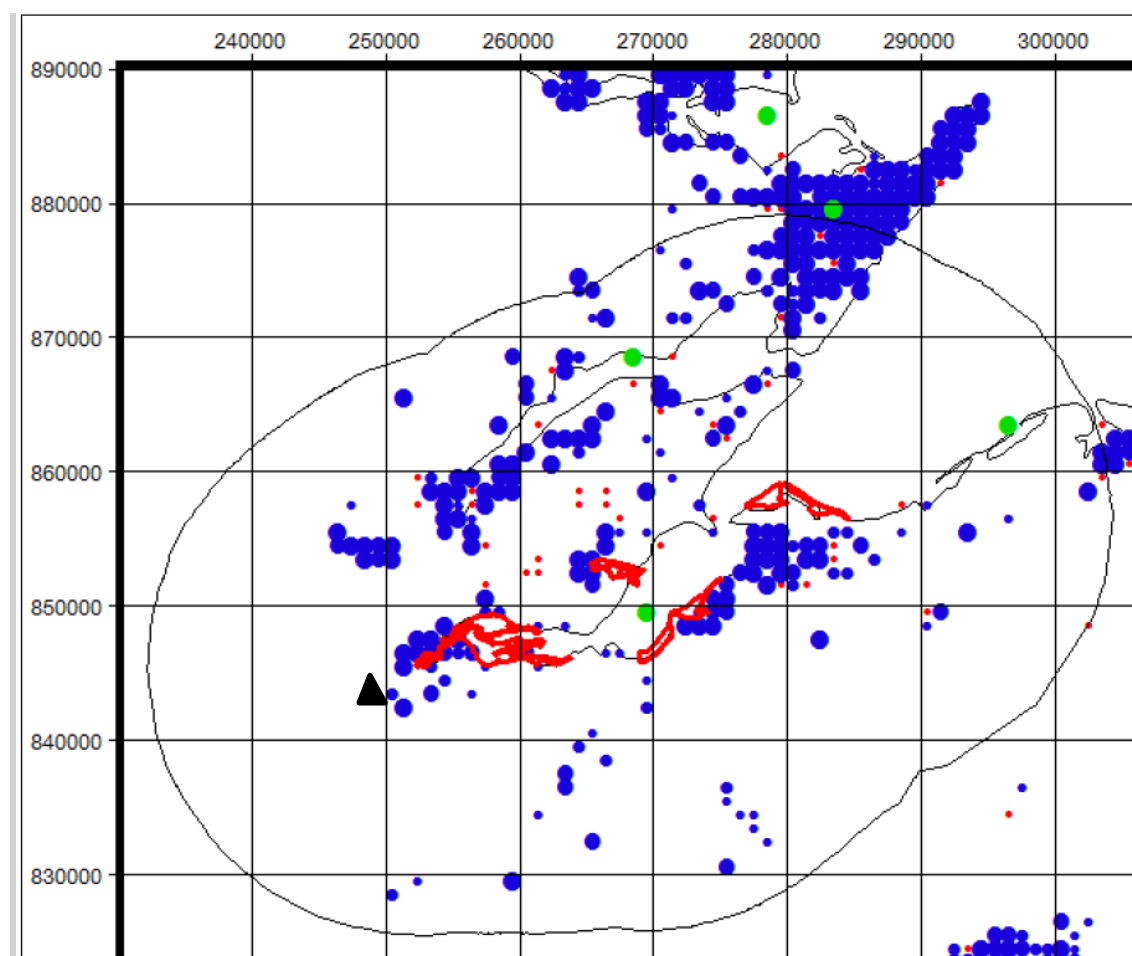
<sup>9</sup> SNH (2016).Assessing Connectivity with Special Protection Areas (SPAs) <https://www.nature.scot/sites/default/files/2022-12/Assessing%20connectivity%20with%20special%20protection%20areas.pdf>.

### Foraging Geese

- 2.3.2 The main source of desk study data for assessing the distribution of foraging geese relevant to the footprint of the Proposed Development is Mitchell (2012)<sup>10</sup>. A summary of indicative goose foraging distribution for the relevant European sites based on the study is provided below. The qualifying species of goose for all relevant European sites is greylag goose.

#### Inner Moray Firth SPA and Ramsar

- 2.3.3 The distribution map in Mitchell for foraging flocks within 20 km of the European site (**Plate 1**) shows dense clusters of foraging goose activity to the east of the Site with only a few outliers nearer to the Site.



**Plate 1:** Feeding distribution within 20 km of Inner Moray Firth SPA (1986/87 to 2011/12) of Greylag Geese. Taken from Mitchell (2012).

*Legend:*

*Red line: SPA boundary.*

*Black line: 20 km buffer.*

*Black triangle: approximate location of the Site.*

*Green dots: principal roost sites holding more than 1.0% of the population (based on count data from 2010/11).*

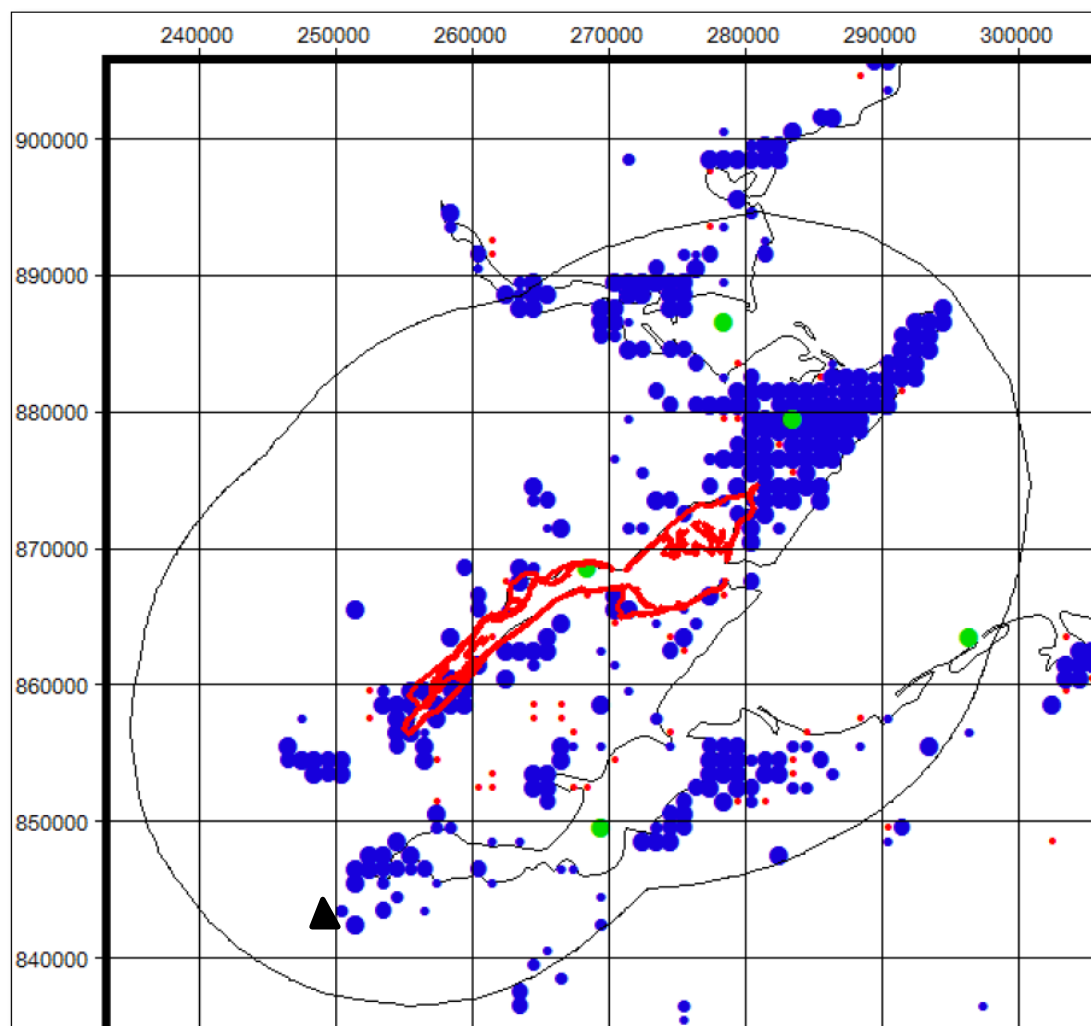
*Blue dots: sensitivity index, based on annual peak counts of foraging birds for each 1 km grid square, represented by four graduated dots.*

*Red dots: 1 km squares for which no quantitative data exists but geese were known to be present.*

<sup>10</sup> Mitchell, C. (2012). Mapping the distribution of feeding Pink-footed and Iceland Greylag Geese in Scotland. Wildfowl & Wetlands Trust / Scottish Natural Heritage Report, Slimbridge. 108pp.

### Cromarty Firth SPA and Ramsar

- 2.3.4 The distribution map in Mitchell (**Plate 2**) below shows that dense clusters of foraging activity to the east and north of the Site with only a few outliers closer to the Site.



**Plate 2:** Feeding distribution within 20 km of the Cromarty Firth SPA (1986/87 to 2011/12) of Greylag Geese. Taken from Mitchell (2012).

*Legend:*

*Red line: SPA boundary.*

*Black line: 20 km buffer.*

*Black triangle: approximate location of the Site.*

*Green dots: principal roost sites holding more than 1.0 % of the population (based on count data from 2010/11).*

*Blue dots: sensitivity index, based on annual peak counts of foraging birds for each 1 km grid square, represented by four graduated dots.*

*Red dots: 1 km squares for which no quantitative data exists but geese were known to be present.*

- 2.3.5 The mapping used to show goose foraging distribution in Mitchell suggests use of the Site is unlikely, albeit the granularity of the mapping is such that this indicative and not fully conclusive. However, densities of foraging shown are considerably lower in the broad area of the Proposed Development compared to beyond a EZoI of the Proposed Development for both European sites.

### *Osprey*

- 2.3.6 Flight activity surveys to inform the baseline for the Proposed Development recorded 13 osprey flights across the Collision Risk Area (CRA)<sup>11</sup> between April 2023 and August 2023. Flight activity presumably involved birds from breeding sites in the wider area.
- 2.3.7 Scarce Breeding Bird Surveys were conducted for the associated Beaully-Peterhead OHL (2023) and Spittal – Loch Buidhe – Beaully 400kv OHL (2024), the survey areas of which overlapped the Site and a 2 km study area. Two osprey nest sites were recorded in 2023 and 2024 within 2 km of the Site. The closest nest site to the Site was approximately 820 m away in 2024, with other nest sites 840 m and 1 km away respectively.
- 2.3.8 Osprey flight activity and nest sites are illustrated on **Confidential Figure 2. Annex A**.

### *Otter*

- 2.3.9 Otter is considered here as a qualifying interest of the Strathglass Complex SAC. Although the European site is a significant distance from the Site (9.4 km), otter populations potentially linked to the European site could theoretically have home ranges that overlap with the Proposed Developments EZol; otters' territorial range can be as large as 20-30 km of river bank and the species can travel large distances across terrestrial habitat<sup>12</sup>.
- 2.3.10 There were no records of otter within the Site or an additional 200 m study area during the protected species surveys to inform assessment of the Proposed Development in 2023. The study area of 200 m represents the maximum predicted disturbance distance to an otter resting site, this maximum distance is for breeding holts<sup>7</sup>.

## **2.4 Potential LSE and European Sites Scoped Out**

- 2.4.1 The only potential effect pathway resulting in LSE to habitats would be pollution events that are potentially carried from the Site via hydrological connectivity. The relevant European sites are all at significant distances from the Site (minimum of 4.4 km), and any pollution events would be dissipated across these distances.
- 2.4.2 Given no effect pathway from pollution events, it is considered reasonable to scope out qualifying interests of European sites that involve non-mobile receptors i.e., qualifying habitats as pollution events would be the only credible effect pathway for non-mobile receptors. The Site does not form (FLL) with the specialised qualifying habitats of the relevant European sites. Therefore, the following European sites are scoped out completely:
- Moniak Gorge SAC;
  - Moray Firth SAC; and
  - Conon Islands SAC;
- 2.4.3 Considering permanent loss of habitat within the Site, this will mainly comprise a relatively small area of arable farmland and grazing pasture. This habitat is wholly unsuitable for many of the qualifying interests of the relevant European sites. Greylag goose could potentially forage within the Site. However, the relatively small area of habitat lost within the footprint of the Proposed Development is not considered an important resource in the context of the widespread availability of this habitat beyond the Site. Theoretically, curlew, a qualifying species of both Inner Moray Firth and Cromarty Firth SPA/Ramsar, could forage on pasture like that found within the Site. However,

<sup>11</sup> CRA defined as the Proposed Development red line boundary and a 100m buffer.

<sup>12</sup> Wild Otter Trust. <https://ukwildottertrust.org/otters-101/>.

studies show this species has a relatively small foraging range away from its main estuarine foraging and roost sites. One study showed some birds travelling up to 3.5 km to forage on farmland<sup>13</sup>. The closest relevant European sites to the Site for this species are the Inner Moray Firth SPA and Ramsar approximately 4.4 km away.

- 2.4.4 Considering Moray Firth SAC, the qualifying features include a mobile species, bottlenose dolphin, however, this is a specialised marine species for which the Site and surrounding area are wholly unsuitable. The only potential effect pathway resulting in LSE would be pollution events potentially carried from the Site via hydrological connectivity, as discussed above and scoped out.
- 2.4.5 The qualifying interests of Strathglass Complex SAC are scoped out **except for Otter**. Other qualifying interests of the SAC are non-mobile habitats, and the Site and surrounding area does not form FLL with these qualifying interests.
- 2.4.6 All operational effects relating to disturbance and displacement are scoped out. Operational activities are predicted to involve occasional maintenance by a small number of personnel and limited use of vehicles which are highly unlikely to result in displacement and disturbance effects to qualifying interests of the relevant European sites.

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<sup>13</sup> Mander, L., Nicholson, I., Green, R., Dodd, S., Forster, R. & Burton, N. (2022). Individual, sexual and temporal variation in the winter home range sizes of GPS-tagged Eurasian Curlew *Numenius Arquata*. Bird Study.

### 3. HRA SCREENING

#### 3.1 Construction Phase

- 3.1.1 The potential impacts from the Proposed Development and their potential effect on the European sites during the construction phase are detailed in **Table 3-1 Inner Moray Firth SPA and Ramsar to Table 3-4 Glen Affric to Strathconon SPA** below. There is no potential for direct land take of the European sites as the Site does not overlap with them. Inner Moray Firth SPA and Ramsar and Cromarty Firth SPA and Ramsar are assessed together considering their overlapping qualifying interests.

**Table 3-1 Inner Moray Firth SPA and Ramsar**

Potential Impact/Effect	Screening Assessment
Disturbance/displacement of qualifying species from the footprint of the Proposed Development and adjacent areas forming FLL – visual, vibrational and acoustic disturbance from the movement of plant and equipment and operation of plant.	<p><b>Qualifying interest:</b> waders and wildfowl except greylag goose.</p> <p>Most of the qualifying species of the European sites are specialist estuarine and marine species. Potential displacement from FLL would not occur for these species due to their specialist ecology, the Site and a relevant EZol is wholly unsuitable habitat for most of these species. Theoretically, curlew could use pasture like that within and surrounding the Site for foraging, but studies indicate that foraging birds are unlikely to range &gt;4 km from an estuarine site<sup>13</sup>. The European site is approximately 4.4 km away.</p> <p>Taking account of all the above, no effect pathways resulting in LSE to the listed qualifying interests of the European site are predicted.</p> <p><b>No Likely Significant Effects</b></p>
	<p><b>Qualifying interest:</b> greylag goose.</p> <p>This species could potentially forage on farmland within the Site or a relevant EZol. However, the data from Mitchell<sup>10</sup> discussed above indicates a low likelihood of foraging activity within the Proposed Developments EZol and shows dense clusters of foraging goose activity to the east of the Site with only a few outliers nearer to the Site.</p> <p>The footprint of the Proposed Development and the predicted maximum EZol for disturbance/displacement of 600 m are considered highly unlikely to form FLL which is important to populations of foraging greylag geese from the European site.</p> <p>Taking account of all the above, no effect pathways resulting in LSE to greylag goose are predicted.</p> <p><b>No Likely Significant Effects</b></p>
	<p><b>Qualifying interest:</b> osprey.</p> <p>Ospreys breeding in the wider area surrounding the Site may travel to forage within the European sites based on predicted maximum foraging ranges for osprey of 20 km. Potential consequences (a worst-case scenario) of disturbance to breeding ospreys from construction works to facilitate the Proposed Development could be that up to two pairs of ospreys in the wider area fail to breed on a temporary basis and recruitment into the European site populations is reduced.</p> <p>However, osprey nest sites identified in 2023 and 2024 were beyond the upper limit of the predicted disturbance distance range for breeding osprey (750 m)<sup>6</sup>. Further to this, potential</p>



Potential Impact/Effect	Screening Assessment
	<p>disturbance and displacement effects will be further reduced by the local topography, the Site is situated on the opposite side of a forested hill to the Osprey nest sites. The topography is predicted to eliminate disturbance from visual stimuli and to significantly reduce noise disturbance.</p> <p>In addition to qualifying foraging osprey populations breeding outside the SPA, the qualifying population of osprey also includes those that breed within the SPA/Ramsar boundary. In theory, the Site is within the foraging range of ospreys breeding within the SPA/Ramsar.</p> <p>Suitable foraging habitat is absent from the Site and limited in the immediate surrounding area. A potentially suitable small lochan is approximately 300 m from the Site. However far more extensive foraging habitat comprising the Beaully River is further away from the Site (&gt;700 m). Displacement from FLL used for foraging is therefore unlikely.</p> <p><b>No Likely Significant Effects</b></p>

**Table 3-2 Moray Firth SPA**

Potential Impact/Effect	Screening Assessment
Disturbance/displacement of qualifying species from the Proposed Developments EZoI – visual and acoustic disturbance from the movement of plant and equipment and operation of plant.	<p><b>All qualifying interests</b></p> <p>All the European sites qualifying interests relate to specialist marine/estuarine species for which the Site and surrounding area are wholly unsuitable.</p> <p>Taking account of all the above, no effect pathways resulting in LSE to qualifying interests of the European site are predicted.</p> <p><b>No Likely Significant Effects</b></p>

**Table 3-3 Strathglass Complex SAC**

Potential Impact/Effect	Screening Assessment
Disturbance/displacement of qualifying species from the Proposed Developments EZoI – visual and acoustic disturbance from the movement of plant and equipment and operation of plant.	<p><b>Qualifying interest: otter.</b></p> <p>Habitat within the Site mainly comprises grazing pasture and arable farmland of low suitability for otter. Otters may commute across the Site to reach other areas of more suitable habitat. However, this is considered unlikely given the extensive suitable habitat provided by the River Beaully to the north and east of the Site which provides a potential commuting corridor to the European site.</p> <p>The Site boundary is approximately 1 km from the closest bank of the River Beaully. At this distance, disturbance is not predicted to occur to otter resting sites. The maximum recommended stand off for otter resting sites, relating to natal holts (breeding sites) is 200 m<sup>7</sup>. There were no records of otter within the relevant survey area for the species (Site boundary and 200 m) during protected species surveys to inform assessment of the Proposed Development in 2023.</p> <p>Taking account of all the above, no effect pathways resulting in LSE to otter are predicted.</p> <p><b>No Likely Significant Effects</b></p>

**Table 3-4 Glen Affric to Strathconon SPA**

Potential Impact/Effect	Screening Assessment
Disturbance/displacement of qualifying species from the footprint of the Proposed Development and adjacent areas forming FLL – visual and acoustic disturbance from the movement of plant and equipment and operation of plant.	<p><b>Qualifying interest:</b> golden eagle.</p> <p>The SPA is a significant distance from the Site (approximately 9.4 km) and therefore no direct disturbance could occur to a golden eagle nest site. The distance of the SPA from the Site is at the maximum limit of the foraging range predicted for golden eagle<sup>9</sup> making displacement from linked foraging habitat unlikely. Further to this, the Site and surrounding area comprises farmland and woodland of low suitability for foraging golden eagle.</p> <p>Taking account of all the above, no effect pathways resulting in LSE to golden eagle are predicted.</p> <p><b>No Likely Significant Effects</b></p>

**Table 3-5 North Inverness Lochs SPA**

Potential Impact/Effect	Screening Assessment
Disturbance/displacement of qualifying species from the footprint of the Proposed Development and adjacent areas forming FLL – visual and acoustic disturbance from the movement of plant and equipment and operation of plant.	<p><b>Qualifying interest:</b> Slavonian grebe.</p> <p>The SPA is a significant distance from the Site (approximately 8.9 km). The sole qualifying interest, Slavonian grebe, is a specialist aquatic species for which the Site and surrounding area is wholly unsuitable.</p> <p>Taking account of all the above, no effect pathways resulting in LSE to Slavonian grebe are predicted.</p> <p><b>No Likely Significant Effects</b></p>

**Table 3-6 Cromarty Firth SPA and Ramsar**

Potential Impact/Effect	Screening Assessment
Disturbance/displacement of qualifying species from the footprint of the Proposed Development and adjacent areas forming FLL – visual and acoustic disturbance from the movement of plant and equipment and operation of plant.	<p><b>Qualifying interest:</b> waders and wildfowl except greylag goose.</p> <p>No effect pathways are predicted using the same rationale provided above under Inner Moray Firth SPA and Ramsar.</p> <p><b>No Likely Significant Effects</b></p>
	<p><b>Qualifying interest:</b> greylag goose.</p> <p>No effect pathways are predicted using the same rationale provided above under Inner Moray Firth SPA and Ramsar.</p> <p><b>No Likely Significant Effects</b></p>
	<p><b>Qualifying interest:</b> osprey.</p> <p>No effect pathways are predicted using the same rationale provided above under Inner Moray Firth SPA and Ramsar.</p> <p><b>No Likely Significant Effects</b></p>

## 3.2 Operational Phase

- 3.2.1 The potential impacts from the Proposed Development and their potential effect on the European sites during the operational phase are detailed in Table 3-7 **Inner Moray Firth SPA and Ramsar** to Table 3-8 **Cromarty Firth SPA and Ramsar** below. The only credible effect pathway during the operational phase is collision risk with the OHL for qualifying bird species of the relevant European

sites. The only qualifying species of the relevant European sites likely to be vulnerable to collision risk from the Proposed Development is osprey based on the rationale provided above within HRA screening for the construction phase. This is because the relevant bird species apart from osprey have been determined not to occur within the Proposed Development footprint and a relevant EZoI due to wholly unsuitable habitat or the species is highly unlikely to occur in significant numbers.

3.2.2 Therefore, only two European sites which include osprey as their qualifying interests, are relevant to the operational phase:

- Inner Moray Firth SPA and Ramsar; and
- Cromarty Firth SPA and Ramsar.

**Table 3-7 Inner Moray Firth SPA and Ramsar**

Potential Impact/Effect	Screening Assessment
Collision risk with the operational OHL resulting in mortality to ospreys potentially linked to qualifying populations of the SPA.	<p><b>Qualifying interest:</b> osprey</p> <p>Flight activity surveys to inform the baseline for the Proposed Development recorded 13 osprey flights between across the CRA between April 2023 and August 2023. Flight activity presumably involved birds from breeding sites closest to the Site and included observations of fledged juveniles.</p> <p>Scarce Breeding Bird Surveys were conducted for the associated Beaulay-Peterhead OHL (2023) and Spittal – Loch Buidhe – Beaulay 400kv OHL (2024), the survey areas of which overlapped the Site and a 2 km study area. Two osprey nest sites were recorded in 2023 and 2024 within 2 km of the Site. The presence of an existing OHL approximately 130 m south of the Proposed Development will likely result in a degree of awareness of obstacles in the general area for overflying ospreys. However, the baseline data indicates inexperienced young fly across the Site, these young birds are likely to be more predisposed to collision risk given their inexperience and less adept manoeuvrability. Further, the permanent diversion will result in six new towers at a new location unfamiliar to commuting raptors. In addition, the maximum tower height for the permanent OHL diversion, based on current assessments is 59.42 m which is a significant height and increases the potential for collision risk</p> <p>Without mitigation, LSE are predicted</p> <p><b>Likely Significant Effects</b></p>

**Table 3-8 Cromarty Firth SPA and Ramsar**

Potential Impact/Effect	Screening Assessment
Collision risk with the operational OHL resulting in mortality to ospreys potentially linked to qualifying populations of the SPA.	<p><b>Qualifying interest:</b> osprey</p> <p>The same rationale applied to osprey populations potentially linked to the Inner Moray Firth SPA and Ramsar in Table 3-7 can be applied to the Cromarty Firth SPA and Ramsar. The SPA is within the foraging range of ospreys breeding in the wider area surrounding the Site, these birds also making flights across the Site.</p> <p>Without mitigation, LSE are predicted</p> <p><b>Likely Significant Effects</b></p>

## 4. SCREENING CONCLUSION

- 4.1.1 LSE could not be ruled out for Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA and Ramsar. The following LSE and affected qualifying species apply to both European sites: operational phase collision risk for osprey.
- 4.1.2 As LSE have been identified, the HRA is required to progress to Stage 2 Appropriate Assessment (AA). Information to inform the AA has been provided in **Section 5**.

## 5. INFORMATION TO INFORM APPROPRIATE ASSESSMENT

### 5.1 Introduction

- 5.1.1 For the LSE identified at Stage 1, this section provides information to inform an AA, to be undertaken by the Competent Authority. The information will allow the Competent Authority to consider potential Adverse Effects on Site Integrity (AESI) for Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA and Ramsar because of the Proposed Development.

### 5.2 Impact Avoidance and Mitigation

- 5.2.1 Mitigation measures described in **Table 5-1 Mitigation and AA Determination** will be incorporated into a site-specific CEMP. The CEMP will be the responsibility of the Principal Contractor with supervision and advice provided by an Ecological Clerk of Works (ECoW) employed by the Principal Contractor.
- 5.2.2 Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA are considered together in **Table 5-1 Mitigation and AA Determination** given the same LSE on the same qualifying interest and the same recommendations for mitigation are involved.

**Table 5-1 Mitigation and AA Determination**

Likely Significant Effects	Impact Avoidance and Mitigation	AA Determination After Mitigation
Collision mortality	<p>The Principal Contractor will install bird deterrent line markers along the permanent OHL diversion and temporary OHL diversion.</p> <p>The conductors for the Proposed Development are configured into bundles of two, supported by spacers. This configuration is considered to be more visible to birds than single conductors and there is currently no approved BFD for use on this configuration. As a result, where line marking has been identified as additional mitigation, this relates to installing BFDs on the earth wire.</p> <p>Technical information on Bird Flight Diversers (BFDs) can be found in Prinsen et al., 2011<sup>14</sup>. The following summary of key considerations for installation of BFDs is provided:</p> <ul style="list-style-type: none"> <li>• BFDs should be installed as close together as possible (at least every 5-10m on power lines).</li> <li>• BFDs should be designed for maximum visibility in different weather and light conditions, within the limits of a design approved for use on the network;</li> <li>• BFDs II All BFDs shall be maintained in line with operations standards to minimise the potential risk to birds. This includes replacing BFDs that have fallen off, been damaged or are otherwise not functioning for the purpose they were intended to. As per operations processes, all defects on BFDs shall be raised through a defect reporting system and operations shall address defects within a defect programme of works in line with planned outages. Defects shall be addressed within two</li> </ul>	<p>Bird collisions with OHL infrastructure typically involve the 'wires' (conductors, earth wires and stays), with the towers assumed to be sufficiently visible to the birds. It is generally acknowledged that the less visible the wires are the greater the risk of collision and as such the lighter/thinner earth wires generally pose a greater risk than conductors which are heavier/thicker. The risk of collision could be assumed to be directly proportional to the thickness (and therefore visibility) of the wires concerned<sup>15</sup>. Earth wire thickness for the Replacement OHL and Existing OHL are 23.8 mm earthwire and 37.26 mm for the OHL respectively. This is a like for like replacement and therefore, the Replacement OHL conductors visibility will not change from the existing.</p> <p>Flight activity surveys to inform the baseline for the Proposed Development recorded 13 osprey flights between across the CRA between April 2023 and August 2023. It is reasonable to conclude that activity involved birds from breeding sites in the wider area surrounding the Site and included observations of fledged juveniles.</p> <p>Scarce Breeding Bird Surveys were conducted for the associated Beaully-Peterhead OHL (2023) and Spittal – Loch Buidhe – Beaully 400kv OHL (2024), the survey areas of which overlapped the Site and a 2 km study area. Two osprey nest sites were recorded in 2023 and 2024 within 2 km of the Site. The closest nest site to the Site was approximately 830 m away in 2024, with other nest sites 860 m and 1.1 km away respectively.</p> <p>There is an existing OHL close to the location of the temporary diversion and approximately 130 m south of the permanent OHL diversion, which ospreys and other raptor species may have a degree of habituation to. The presence of an existing OHL will likely result in a degree of awareness of obstacles in the</p>

<sup>14</sup> Prinsen, H.A.M., Smallie, J.J., Boere, G.C. & Píres, N. (Compilers). (2012). Guidelines on How to Avoid or Mitigate Impact of Electricity Power Grids on Migratory Birds in the African-Eurasian Region. AEWA Conservation Guidelines No. 14, CMS Technical Series No. 29, AEWA Technical Series No. 50, CMS Raptors MOU Technical Series No. 3, Bonn, Germany.

<sup>15</sup> Raptor Protection of Slovakia (2021). Electrocutions & Collisions of Birds in EU Countries: The Negative Impact & Best Practices for Mitigation. Raptor Protection of Slovakia, Bratislava.

Likely Significant Effects	Impact Avoidance and Mitigation	AA Determination After Mitigation
	<p>OPEX budget periods i.e., five 5-10 years, to enable operations to make appropriate access and safety arrangements and secure required budget.</p> <ul style="list-style-type: none"> <li>• Post installation, monitoring will be undertaken. OHL inspections are carried out by operations and include inspections of all BFDs. OHL Inspections are carried out every six years aligning with regulatory budget periods. Manufacturers specifications for BFDs are 20 years unless otherwise stated; real time failure rate observed by Operations is 15 years. Based on this, OHL Inspections of six years are considered appropriate. During these inspections, operational engineers would check for bird strike mortalities beneath the OHL.</li> <li>• Reactive monitoring may be undertaken on a more frequent basis where a specific higher risk has been identified e.g. increased line strikes, reporting of bird carcass in the areas.</li> <li>• Several nesting Schedule 1 raptor species have been recorded within 2 km of the Proposed Development and survey data shows numerous flights for osprey and red kite, including inexperienced young birds, across the Proposed Development footprint. Considering this, it is recommended that a slightly more frequent rate of inspection by operations is undertaken, to include a check in year three, year six and six years thereafter.</li> </ul>	<p>general area for overflying ospreys. Further to this, local topography will probably influence flight heights of ospreys due to the presence of rising ground and forestry immediately north of the Proposed Development encouraging birds to gain height.</p> <p>However, the permanent diversion will result in six new towers at a new location unfamiliar to commuting raptors. In addition, the maximum tower height for the permanent OHL diversion, based on current assessments is 59.42 m which is a significant height and increases the potential for collision risk.</p> <p>Further to this, the baseline data indicates inexperienced young fly across the Site, these young birds are likely to be more predisposed to collision risk given their inexperience and less adept manoeuvrability.</p> <p>Based on the above information it is considered that mitigation is required to conclude no adverse effect on site integrity.</p> <p>Mitigation in the form of BFDs is proposed. It is considered that with the installation of BFDs the likelihood of collision mortality would reduce in relation to existing baseline conditions (presence of existing OHL with no line markers). Research has shown that line marking can reduce collisions with OHL by up to 94%<sup>16</sup> for water bird species including mute swan. No direct evidence, however, was sourced for effectiveness of BFDs specifically for osprey.</p> <p>Due to the factors described above, no significant effects on osprey are anticipated with respect to the conservation objectives listed in <b>Table 2-1 European Site Information</b>. Therefore, no AEOI has been identified.</p> <p>Due to the uncertainty as to the effectiveness of BFDs it is considered that minor residual effects (very low rate of collision mortality) would remain.</p>

<sup>16</sup> Prinsen, H.A.M., Smallie, J.J., Boere, G.C. & Píres, N. (Compilers). (2012). Guidelines on How to Avoid or Mitigate Impact of Electricity Power Grids on Migratory Birds in the African-Eurasian Region. AEWA Conservation Guidelines No. 14, CMS Technical Series No. 29, AEWA Technical Series No. 50, CMS Raptors MOU Technical Series No. 3, Bonn, Germany.



### 5.3 In-Combination Assessment

- 5.3.1 Minor effects from the Proposed Development will remain unmitigated for Inner Moray Firth (SPA and Ramsar), and Cromarty Firth (SPA and Ramsar). Specifically, collision mortality for osprey. As such an in-combination assessment is required to ascertain if these effects have the potential to result in an adverse effect on site integrity in-combination with other plans or projects.

#### *Relevant Plans and Projects*

- 5.3.2 Plans and projects with the potential to act in-combination with the Proposed Development were identified following a review of known existing proposals. The following plans and projects were considered relevant based on their scale and their potential for the same significant effect to osprey comprising collision mortality:
- The Spittal-Beaully 400 kV OHL adjacent to the Proposed Development; and
  - The Beaully-Peterhead 400 kV OHL adjacent to the Proposed Development.

#### Spittal-Beaully 400 kV OHL

- 5.3.3 The associated projects point of connection is the proposed Fanellan 400 kV Substation, the same as the connection point for the Proposed Development. To reach its connection point the associated project requires a crossing of the River Beaully on an east-west axis.
- 5.3.4 Breeding season flight activity results are not currently available from surveys to inform the associated project. However, flight activity results from surveys to inform assessment of the Proposed Development show a high proportion of osprey flights that would also cross the associated project. Further to this, because of the associated projects requirement for a crossing of the River Beaully, it is reasonable to assume that the associated projects route would intersect flight routes for ospreys commuting along the River Beaully between nest sites and foraging areas within Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA and Ramsar.
- 5.3.5 Therefore, in-combination effects are predicted. For the associated project the same mitigation as for the Proposed Development is recommended. From the point of the associated projects crossing of the River Beaully to the point of connection at Fanellan Substation, BFDs will be installed. The process is expected to be efficient and coordinated considering the same developer is responsible for the Proposed Development and the associated project.
- 5.3.6 For technical information pertaining to line markers, please refer to **Table 5 1 Mitigation and AA Determination**.

#### Beaully-Peterhead 400 kV OHL

- 5.3.7 The associated projects point of connection is the Fanellan Substation, the same as the connection point for the Proposed Development. However, the associated project's connection is approximately 250 m south of the Proposed Development i.e., further away from potential sources of flight activity for osprey based on nest locations in 2023 and 2024, and further away from the most efficient flight routes between nest locations and foraging areas within Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA and Ramsar. Based on flight activity survey data from 2023 to inform assessment of the Proposed Development, osprey flight activity was mainly >150 m north of the associated projects connection point.
- 5.3.8 In addition, flight activity surveys to inform assessment of the associated project did not record any osprey flight activity from Vantage Points overlapping with the survey area for the Proposed Development.



5.3.9 No in-combination effects are predicted.

## 5.4 Appropriate Assessment Conclusion

5.4.1 Potential in-combination effects were identified for Spittal-Beaully 400 kV OHL. However, the implementation of mitigation measures for the associated project and the Proposed Development in the form of BFDs will reduce any residual effects to minor.

5.4.2 **Due to the factors described above, no significant effects on osprey are anticipated with respect to the conservation objectives listed in Table 2-1 European Site Information. Therefore, no AEOL has been identified.**

## 5.5 Conclusions

5.5.1 This document has considered the potential for impacts arising from the construction and operation of the Proposed Development that would have the potential to adversely affect Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA and Ramsar and their qualifying features and conservation objectives.

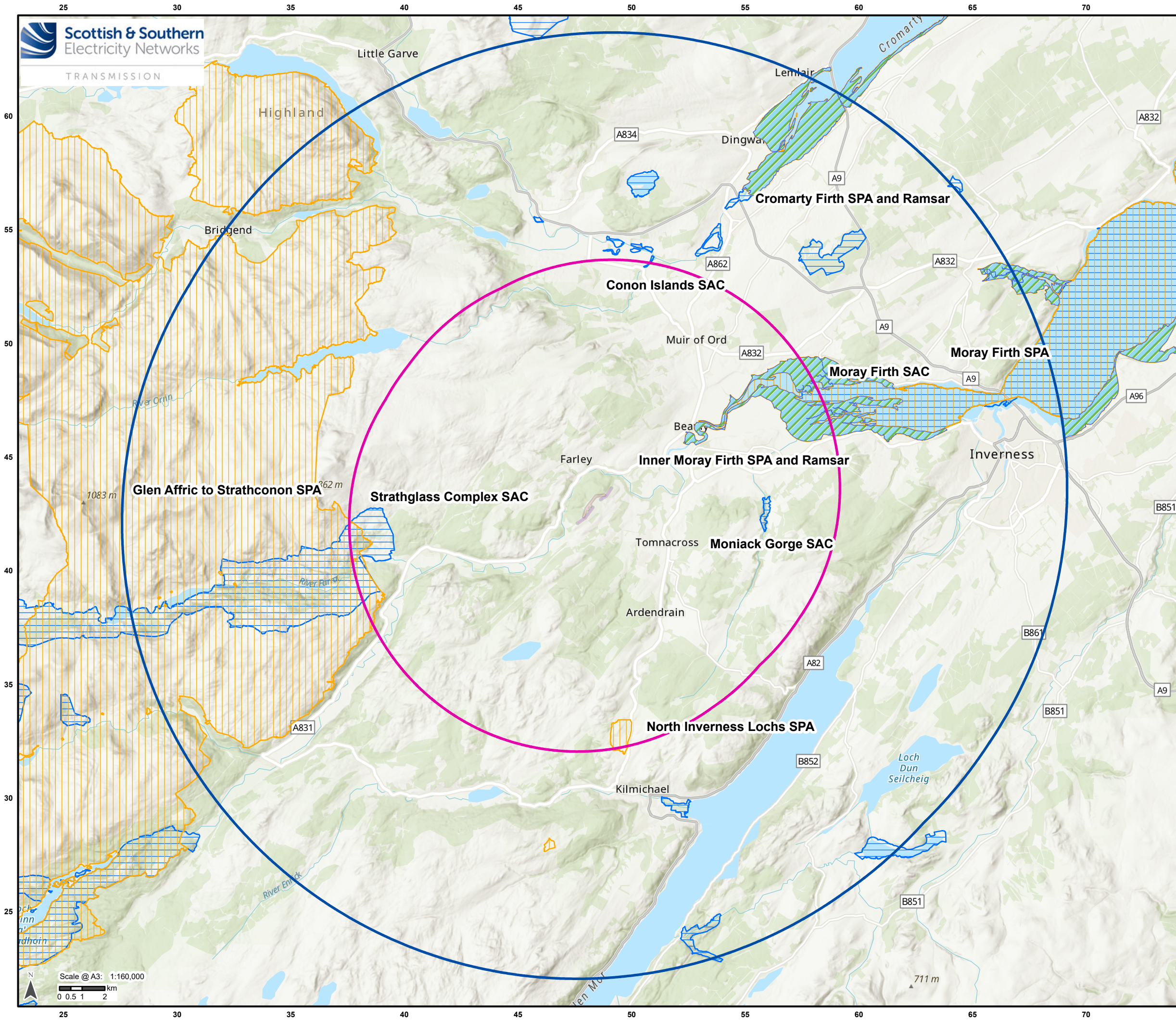
5.5.2 The assessment set out in this report ascertains that the Proposed Development would have no adverse effect upon the integrity of Inner Moray Firth SPA and Ramsar, and Cromarty Firth SPA and Ramsar or the conservation objectives relating to any of the qualifying interest features, either individually or in combination with other plans and projects, subject to the implementation of mitigation (line markers).

## **ANNEX A**

Figure 1 – Relevant European Sites and Site Location.

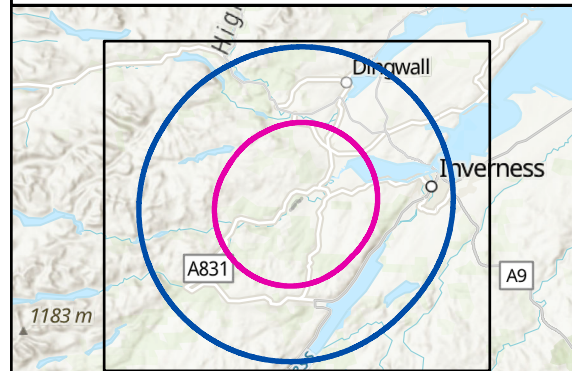
Figure 2 – Confidential Osprey Nest Sites and Flight Activity





### Legend

- Permanent Beauly - Denny Overhead Line Diversion 50m LOD
- Temporary Beauly - Denny Overhead Line Diversion 50m LOD
- 10km Search Area
- 20km Search Area (Sites with Geese and Osprey as Qualifying Species)
- Ramsar Sites
- Special Protection Areas (SPA)
- Special Area of Conservation (SAC)



Scale 1:1,000,000

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Project No: LT000459  
Project: Beauly-Denny Overhead Line Diversion  
Environmental Appraisal

Title:  
HRA Figure 1 European Sites

Drawn by: SH Date: 20/06/2025

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