

**Spittal to Loch Buidhe to Beauly 400 kV
OHL Connection
Environmental Impact Assessment
Volume 5 | Technical Appendix**

**Appendix 8.7 | Report to Inform Habitat
Regulations Appraisal (Mound
Alderwoods SAC and Dornoch Firth)**

July 2025





Spittal – Loch Buidhe – Beauly 400 kV OHL Connection

Habitats Regulations Appraisal (HRA) Report to inform Appropriate Assessment Mound Alderwoods Special Area of Conservation and Dornoch Firth and Loch Fleet Ramsar Site (non-bird features)

July 2025



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1 INTRODUCTION

- 1.1.1 This report has been produced to inform the Habitats Regulations Appraisal (HRA) process for Scottish and Southern Electricity Networks Transmission (“SEEN Transmission”) application for consent to construct and operate the Spittal to Loch Buidhe to Beaully 400 kV Overhead Line (OHL) Connection (Proposed Development). The project description and overview of the HRA process are presented in the HRA Screening Assessment Report (Screening Assessment) (**Volume 5, Appendix 8.7**). The Screening Assessment presents the HRA Stage 1 Screening Stage assessment of the Proposed Development with respect to its potential to have a Likely Significant Effect (LSE) on European and Ramsar sites of nature conservation importance, either alone or in-combination with other plans or projects.
- 1.1.2 Separate reports have been produced for each European or Ramsar site identified in the HRA Screening Report as requiring further assessment.
- 1.1.3 This report provides information to allow the Competent Authority (i.e. the Scottish Ministers for the Proposed Development) to undertake an HRA Stage 2 Appropriate Assessment (AA) for two designated sites which overlap in the vicinity of the Proposed Development: Mound Alderwoods Special Area of Conservation (SAC) and the Dornoch Firth and Loch Fleet Ramsar (non-bird features only). Ornithological interests are considered in a separate report for Dornoch Firth and Loch Fleet Special Protection Area (SPA) and Ramsar.
- 1.1.4 Mound Alderwoods SAC is approximately 300 ha in area and its primary reason for designation¹ is for the Annex I habitat ‘Alluvial forests with alder (*Alnus glutinosa*) and ash (*Fraxinus excelsior*) (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)’ for which this is considered to be one of the best areas in the United Kingdom. It is the most northerly site selected for this habitat and the largest estuarine alder wood in Britain.
- 1.1.5 Dornoch Firth and Loch Fleet Ramsar² is a much larger site at 7,837 ha and has the same boundary as the SAC around Mound Alderwood (at the head of Loch Fleet) where the estuarine alder woodland forms part of the designation. The Ramsar site qualifies under Criterion 1 for a variety of wetland habitats including estuarine alder woodland, estuaries and sand dunes; Criterion 2 for four nationally scarce aquatic plant species, harbour seal (*Phoca vitulina*), otter (*Lutra lutra*) and breeding osprey (*Pandion haliaetus*); and Criteria 4 – 6 for supporting a range of wintering waterfowl and waders. Effects on ornithological features of the Ramsar site are assessed in a separate document.

¹ NatureScot Site Link – Mound Alderwoods SAC Qualifying Interest List <https://www.nature.scot/sites/default/files/special-area-conservation/8332/sac-qualifying-interest-list.pdf>

² NatureScot Site Link. Dornoch Firth and Loch Fleet Ramsar Citation. <https://www.nature.scot/sites/default/files/ramsar-site/8420/ramsar-site-citation.pdf>

2 METHODOLOGY

2.1 Introduction

2.1.1 The approach to the HRA has followed that set out in the Conservation of Habitats and Species Regulations 2017, as amended ('The Habitats Regulations') and NatureScot guidance on the consideration of plans or projects affecting SACs and SPAs ⁽³⁾, ⁽⁴⁾ ⁽⁵⁾. It has also taken account of a range of other guidance material including the DTA Publications HRA Handbook ⁽⁶⁾ and that produced by the European Commission (EC) 2018a ⁽⁷⁾, 2018b ⁽⁸⁾, 2007 ⁽⁹⁾, 2002 ⁽¹⁰⁾.

2.2 Overview of the HRA Process

2.2.1 The HRA process comprises four main stages:

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

2.2.2 The term "Habitats Regulations Appraisal" encompasses both the initial screening stage and, where required, the follow-on Stages 2 – 4. Stage 1 Screening was described in the HRA Screening Report and will not be considered in this report. Stage 2 is discussed in more detail in the following section.

2.3 Stage 2 – Appropriate Assessment

2.3.1 An AA is undertaken by the Competent Authority to determine potential effects of a project upon the integrity of European sites. As the person applying for consent, the Applicant should provide and analyse sufficient information to allow the Scottish Ministers to determine whether the aspects of the project pertinent to their consents will or will not adversely affect the integrity of European sites.

2.3.2 AA should exclusively focus on the qualifying features of the European site, and it must consider any impacts on the conservation objectives of those qualifying interests. It should also be based on and supported by evidence that can stand up to scientific scrutiny. EC guidance states that without proper reasoning the assessment does not fulfil its purpose and cannot be considered 'appropriate' and therefore the development

³ NatureScot (Updated 2025) Habitats Regulations Appraisal (HRA) Guidance. Accessed July 2025 at <https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra>

⁴ NatureScot (2022). European Site Casework Guidance – How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

⁵ NatureScot (2019). Guidance Note - The handling of mitigation in Habitats Regulations Appraisal - the People Over Wind CJEU judgement.

⁶ Tyldesley, D. and Chapman, C. (2013) The Habitats Regulations Assessment Handbook, December 2024 edition UK, DTA Publications Limited.

⁷ European Commission (2018). Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

⁸ European Commission (2018). Guidance on energy transmission Infrastructure and EU nature legislation.

⁹ European Commission (2007). Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC.

¹⁰ European Commission (2002). Assessment of plans and projects significantly affecting Natura 2000 sites.

cannot be consented. In terms of what is reasonable, guidance states “*to identify the potential risks, so far as they may be reasonably foreseeable in the light of such information as can be reasonably obtained*” ⁽¹¹⁾.

2.3.3 In undertaking an AA, there are two phases:

- a scientific evaluation of all the likely significant effects of the project on the relevant qualifying interests of a European site; and
- a conclusion based on outcomes of the scientific evaluation whether the integrity of a European site will be compromised.

2.3.4 The initial onus when carrying out an AA is to prove that no adverse impacts due to a project will occur, either alone or in-combination with other projects, which would compromise a European site's integrity (Section 63(5) & (6) of the Habitats Regulations). Site integrity can be defined as: “*The coherence of its ecological structure and function, across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified*” ⁽¹²⁾.

2.3.5 The assessment will also consider any avoidance or mitigation measures which will be implemented to avoid or reduce the level of impact from the project. The Competent Authority may also consider the use of conditions or restrictions to help avoid adverse effects on site integrity.

2.3.6 If the AA concludes that the integrity of the European site would be adversely affected, consent can only be granted if there are no alternative solutions, IROPI is applicable and compensatory measures have been secured (Section 64 of the Habitats Regulations).

¹¹ NatureScot (2001). Natura casework guidance: Consideration of proposals affecting SPAs and SACs.

¹² NatureScot (2014). Natura casework guidance: How to consider plans and projects affecting Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

3 INFORMATION TO INFORM THE APPROPRIATE ASSESSMENT

3.1 Introduction

- 3.1.1 The Screening Assessment determined that an AA was required because the potential for LSEs could not be ruled out for the following non-avian qualifying interest features:
- Annex I habitat Alder woodland on floodplains (Mound Alderwoods SAC and Dornoch Firth and Loch Fleet Ramsar); and
 - otter (*Lutra lutra*) (Dornoch Firth and Loch Fleet Ramsar only).
- 3.1.2 The LSEs on these qualifying interest features result from the potential for:
- indirect effects on supporting habitats from run off/pollution during construction activity; and
 - disturbance to and direct loss / mortality of individuals (for otter).
- 3.1.3 This section assesses the impacts of the Proposed Development on the qualifying interest features in relation to the conservation objectives for the sites. The aim is to identify whether no adverse effect can be concluded (as described in **Section 2**), or whether there will be adverse effects on the integrity of Mound Alderwoods SAC or the Dornoch Firth and Loch Fleet Ramsar site.
- 3.1.4 The assessment has drawn on the ornithology survey findings which are presented within **Volume 2, Chapter 9: Ornithology** of the Environmental Impact Assessment Report ("EIA Report") and associated Technical Appendices in **Volume 5**.

3.2 Conservation Objectives and Latest Assessed Condition

- 3.2.1 The Conservation Objectives (COs)¹³ for the qualifying interest features of the Mound Alderwoods SAC are set out in **Table 3-1**. There are no COs set for Ramsar sites.

Table 3-1 Conservation Objectives for Mound Alderwoods SAC

Qualifying Interest Feature	Conservation Objectives
<p>Alder woodland on floodplains* (Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>)</p> <p>* Habitats Directive priority habitat</p>	<ul style="list-style-type: none"> • To ensure that the qualifying feature of Mound Alderwoods SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status.; and • To ensure that the integrity of the Mound Alderwoods SAC is restored by meeting objectives 2a, 2b and 2c for the qualifying feature: <ul style="list-style-type: none"> • 2a. Maintain the extent and distribution of the habitat within the site • 2b. Restore the structure, function and supporting processes of the habitat • 2c. Restore the distribution and viability of typical species of the habitat

- 3.2.2 The latest assessed site condition of the qualifying interest feature of the SAC and Ramsar is listed in **Table 3-2**, as detailed on the NatureScot SiteLink¹⁴ site. No condition assessment was available for the otter qualifying interest of Dornoch Firth and Loch Fleet Ramsar.

¹³ NatureScot Site Link – Mound Alderwoods SAC Conservation Advice Package <https://www.nature.scot/sites/default/files/special-area-conservation/8332/conservation-advice-package.pdf>

¹⁴ NatureScot 2025. Mound Alderwoods SAC. Accessed Jan 2025 at: <https://sitelink.nature.scot/site/8332>

¹⁵ [recommended-riparian-corridor-note.docx](#)

Table 3-2 Summary of Site Condition

Qualifying Interest Feature	Latest Assessed Condition*	Date of Assessment	Negative Pressures
Alder woodland on floodplains (Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>)	Unfavourable Declining	17 th May 2023	<ul style="list-style-type: none"> Over grazing (deer) Plant pests and diseases Water management

3.3 Potential Impacts and Relevant Mitigation Measures

3.3.1 Figure 1.1 illustrates the location of the Proposed Development in relation to Mound Alderwoods SAC and Dornoch Firth and Loch Fleet Ramsar, which have the same boundary in the location closest to the Proposed Development. The Proposed Development does not directly affect the designated site; the closest construction works (shown on Figure 1.2) include a temporary access track, approximately 4 m from the boundary of the SAC / Ramsar site, and the nearest tower compound (Tower no. 266) is situated approximately 178 m from the boundary. No temporary or permanent infrastructure associated with the Proposed Development, or any related tree felling, is located within the SAC and Ramsar site.

3.3.2 The River Fleet is oversailed by the proposed alignment and the river joins the SAC and Ramsar site boundary approximately 1 km downstream of this crossing point. No in-stream works will be undertaken. The Screening Assessment, taking a precautionary approach, concluded that in the absence of mitigation, it is possible that construction activities could result in LSEs on the SAC and Ramsar site from indirect impacts as a result of run-off / pollution into the River Fleet during construction activity. Mitigation measures relevant to the AA are therefore those relating to water management and pollution control.

3.3.3 Embedded project mitigation measures are set out in the Environmental Impact Assessment Report (EIAR) and the General Environmental Management Plans (GEMPs) (**Volume 5, Appendix 3.3: GEMPS**), Species Protection Plans (SPPs) (**Volume 5, Appendix 3.4: SPPs**) and will be further reinforced in the final Construction Environmental Management Plan (CEMP) (an outline CEMP has been included in **Volume 5, Appendix 3.6**). Relevant measures that will be adhered to include:

- protocols for oil and fuel storage & operations on site;
- protocols for surface water and run-off management;
- working areas will be minimised and soil management will minimise erosion of exposed soils;
- water will be prevented from leaving site prior to treatment;
- adequate buffer zones will be identified between working areas and surface waters;
- bulk and bagged cement and concrete additives will be stored at least 30 metres away from watercourses, gullies and drains in properly secured, covered and bunded areas;
- dust from storage areas will be controlled. Stockpiles of cementitious materials such as cement bound sand will be securely covered with a tarpaulin, or non-permeable sheeting;
- diversion drains will be used to catch sediment laden run-off and direct it to treatment facilities such as settlement ponds (where necessary these can be lined), silt fences (not to be installed in watercourse), settlement tanks etc (see CIRIA C6848);
- vegetation removal protocols including maintaining an appropriate buffer zone from water courses, minimising vegetation removal and restoration of banksides to prevent erosion; and
- all mitigation measures will be maintained regularly to ensure their effectiveness.

- 3.3.4 SSEN Transmission have well-established SPPs for protected species, which have been developed in consultation with NatureScot and includes a specific Otter SPP. Relevant general mitigation measures for otter in the SPP include, but are not limited to:
- all works close to waterbodies and watercourses showing signs of regular use by otters will not take place at night or within 2 hours of sunset / sunrise, if possible;
where works close to waterbodies and watercourses are required at night, lighting will be directed away from riparian areas;
 - all works close to water courses and waterbodies must follow best practice measures to ensure their protection against pollution, silting and erosion;
 - any temporarily exposed pipe system will be capped when staff are off site to prevent otters from gaining access;
 - all exposed trenches and holes will be provided with mammal exit ramps e.g. wooden planks or earth ramps when Contractors are off site;
 - an emergency procedure will be implemented by site workers if otter / otter shelters are unexpectedly encountered. All work within 30 m (100 m for high noise/vibration activities) or 200 m for breeding sites will cease until a suitably qualified and experienced ecologist has inspected the site and determined the appropriate course of action; and
 - an exceptional circumstance procedure will be implemented should mitigation options not prove satisfactory in a particular case. Works will be halted whilst mitigation is determined (under consultation with NS if required).
- 3.3.5 The embedded mitigation measures set out in the EIAR follow industry best practice and are routinely deployed on SSEN Transmission projects. They will be stipulated in construction contracts and the implementation and audit of these measures will be overseen by a suitably qualified and experienced Environmental / Ecological Clerk of Works (ECOW). No additional mitigation measures are deemed necessary.

3.4 Assessment of Effects

- 3.4.1 No temporary or permanent infrastructure associated with the Proposed Development is situated within the SAC or Ramsar Site. The River Fleet is situated approximately 25 m from the nearest temporary tower compound (for Tower 266) and 100 m from the temporary tower compound for Tower 265; all towers and access tracks are situated outside the SEPA Recommended Riparian Corridor (15 m)¹⁵ for the River Fleet to protect the riparian zone. As such, it will be possible to maintain bankside vegetation and implement all standard pollution prevention controls to prevent pollution of the river and associated downstream effects. The crossing point at the River Fleet is over 1 km upstream of the SAC / Ramsar site so there are no effects within the designated site. In addition, any potential effects will be managed through the embedded mitigation measures detailed above. With these measures in place, the risk of indirect habitat loss or degradation from run off/pollution during construction activity is reduced to negligible; therefore, no adverse effects on the alder woodland in relation to the conservation objectives for Mound Alderwoods SAC or Dornoch Firth and Loch Fleet Ramsar are predicted.
- 3.4.2 No sign of otters or their holts (underground shelters) or couches (temporary shelters) were recorded within 200 m of the Proposed Development along the River Fleet. However, the species is active in the local area with one otter spraint recorded just inside the Ramsar boundary on a small watercourse and 200 m from the proposed temporary access track (see figure in **Volume 5, Appendix 8.4 Protected Species Technical Report**).
- 3.4.3 As otters are active in the local area and are a mobile species, there is the potential for adverse effects such as disturbance or mortality during works and indirect loss of habitat within the Ramsar as a result of construction

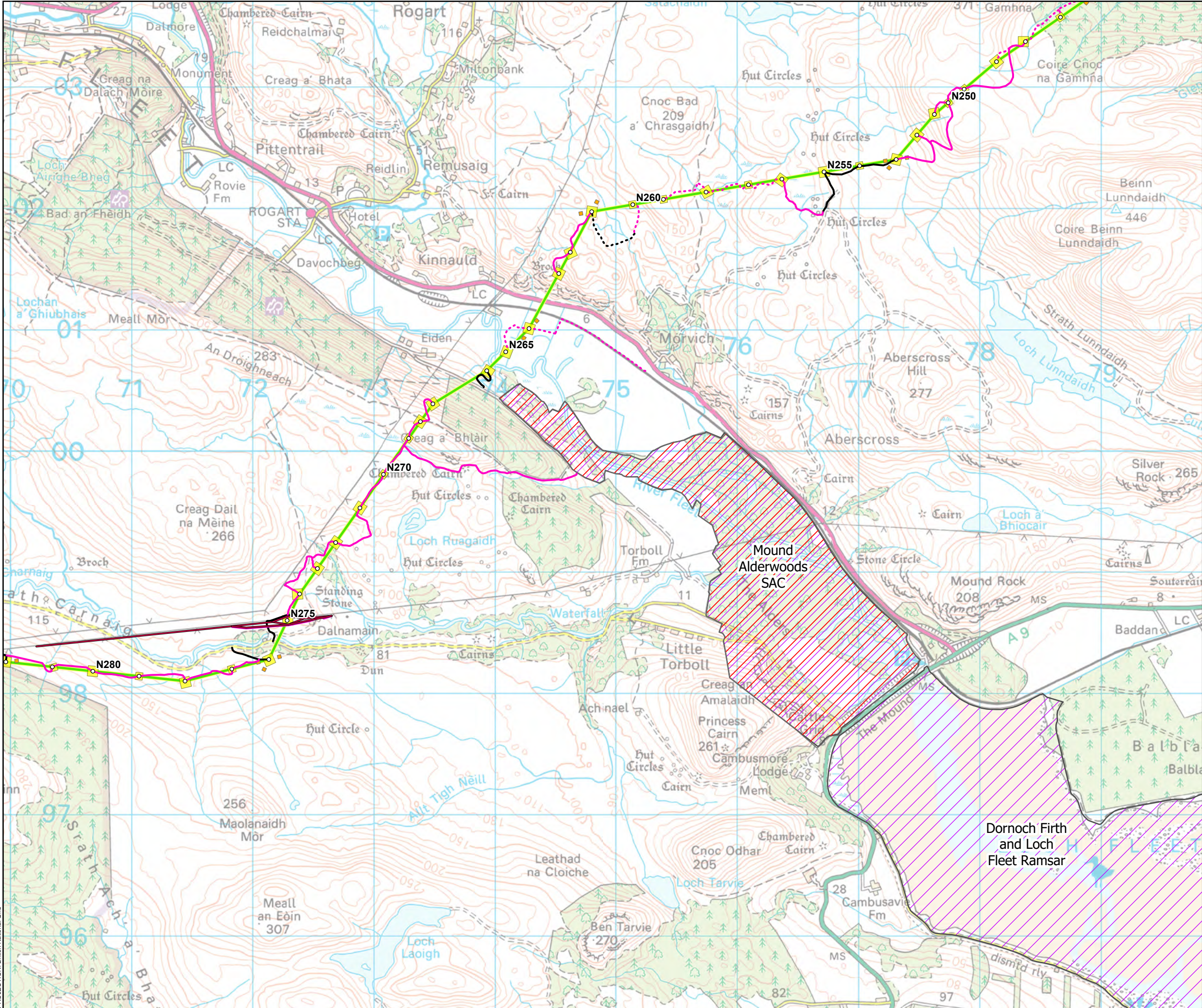
¹⁵ [recommended-riparian-corridor-note.docx](#)

run-off or pollution. As detailed above, the risk of indirect habitat loss or degradation from run off/pollution within the Ramsar site during construction is negligible with embedded mitigation in place, therefore no effect on Ramsar site habitats used by otter are expected. The River Fleet (upstream of the Ramsar site) will not be directly affected as it is over sailed by the OHL and no in-river works are planned. There is the potential for temporary construction related disturbance and displacement of otter from the surrounding habitat, and mortality risk during works, as the species is wide-ranging and highly mobile. SSEN Transmission will utilise mitigation measures, including their Otter SPP and GEMPs (e.g. Water Crossings) to minimise the impacts on any otters using the surrounding area outside the Ramsar boundary. As a result, effects on otters and their supporting habitat will be negligible and no adverse effects in relation to the conservation objectives for the species are expected.

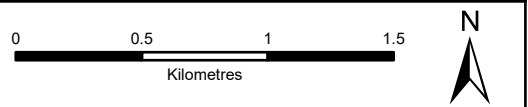
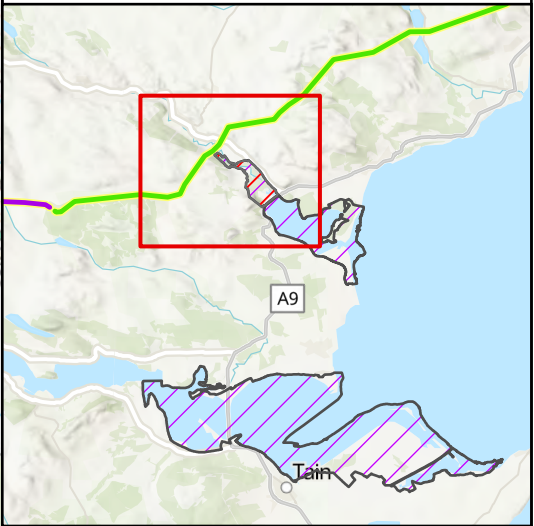
- 3.4.4 As the Proposed Development will have no predicted effects on the qualifying interests of Mound Alderwoods SAC or Dornoch Firth and Loch Fleet Ramsar site, there is no potential for adverse effects in-combination with other projects.

3.5 Summary of Effect on Site Integrity

- 3.5.1 No adverse effect on the 'alder woodland on floodplains' qualifying interest in relation to the conservation objectives for the site is predicted and therefore no adverse effect on the integrity of the Mound Alderwoods SAC is anticipated, either alone or in-combination with other projects.
- 3.5.2 No adverse effects on the alder woodland or otter qualifying interests in relation to the conservation objectives for the site are predicted and therefore no adverse effect on the integrity of the non-ornithological interests of Dornoch Firth and Loch Fleet Ramsar is anticipated, either alone or in-combination with other projects.



- Tower Location
- Alignment Section B
- Special Arrangement
- Temporary Tower Compound Area
- Equipotential Zones (EPZs) (Pulling Locations)
- Temporary Access Track - Cut/Fill
- Temporary Access Track - Floating
- Permanent Access Track - Cut/Fill
- Permanent Access Track - Floating
- Special Area of Conservation (SAC)
- Ramsar



SCALE: See Scale Bar	VERSION: A03
SIZE: A3	DRAWN: CI
PROJECT: 0652629	CHECKED: PW
DATE: 8/11/2025	APPROVED: KG

Figure 1.2
Spittal - Loch Buidhe - Beaully 400 kV OHL
Connection
Dornoch Firth and Loch Fleet Ramsar
& Mound Alderwoods SAC (non-bird features)



PROJECTION: British National Grid