VOLUME 1: CHAPTER 7: ECOLOGY

7. ECOLOGY

7.1 Executive Summary

7.1.1 An assessment has been undertaken of the potential impacts of the Proposed Development on terrestrial ecology (non-avian) features and reaches conclusions as to the predicted likely significance of residual effects. The assessment is based on best practice guidance, and its scope determined through a combination of desk study, field surveys, and consultation with relevant organisations. A separate chapter has been prepared to assess the potential impacts of the Proposed Development on ornithology features (**Chapter 8 - Ornithology**). Given the nature of the Proposed Development, most of the impacts on terrestrial ecology features will arise from construction with direct habitat losses restricted to the footprints of the towers, poles, Cable Sealing End (CSE) compound and the new sections of permanent access track.

7.1.2 The Proposed Development would impact approximately 2.57 ha of habitat within the Caithness and Sutherland Peatlands Special Area of Conservation (SAC) and Ramsar and its component West Halladale Site of Special Scientific Interest (SSSI). These designations are made up of internationally important habitats (including blanket bogs, oligotrophic and dystrophic lochs, mires, heath and peat bogs) supporting rare plants, otter and freshwater pearl mussel populations. However, the Proposed Development only affects a very small proportion (c. 0.002%) of the Caithness and Sutherland Peatlands SAC / Ramsar (and its component West Halladale SSSI) alongside an existing access track at the very edge of the designations and the effect has been assessed as **Minor adverse (not significant)**. A Shadow Habitats Regulations Assessment (SHRA) has been undertaken for the Proposed Development (**Appendix 7.6**), to meet the requirements of the Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations'). Likely significant effects could not be ruled out at the screening stage, although an appropriate assessment concluded that the Proposed Development would have no adverse effects on the integrity of the SAC / Ramsar (either alone or in combination with any other plans or projects).

7.1.3 The Proposed Development would directly impact habitats within the Flow Country World Heritage Site (WHS), which was formally inscribed by UNESCO in July 2024 for its internationally important blanket bog, oligotrophic and dystrophic loch, mire, heath and peat bog habitats. Its boundary is largely contiguous, although not identical, with the Caithness and Sutherland Peatlands SAC / Ramsar designated site boundary. As concluded for the SAC / Ramsar, the Proposed Development affects only a very small proportion of the WHS, and the effect is assessed as **Minor adverse (not significant)**. A separate World Heritage Site Assessment has been undertaken (**Appendix 7.7**) and concluded that the Proposed Development would result in no significant adverse effects on the attributes of the WHS.

7.1.4 The Caithness and Sutherland Peatlands Special Protection Area (SPA) is also overlapping with the Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI designations, the potential impacts on which are assessed in **Chapter 8** of this EIA Report.

7.1.5 The Proposed Development passes over upland habitats typical of the landscape, which are dominated by mire and wet heath communities that are Annex I habitats[1] (for which the SAC / Ramsar has been designated), and some of which are Ground Water Dependent Terrestrial Ecosystems (GWDTE) that are reliant on ground water influences. However, due to the nature of the Proposed Development (which would utilise mostly an existing access track upgraded for the consented Strathy Wood and Strathy South wind farms for construction and operation), permanent habitat losses outside the boundary of the SAC / Ramsar designated site are also very minor and estimated at 1.77 ha in total. As part of the design process towers have been microsited to avoid /

[1] Habitats that are listed in Annex I of the EU Habitats Directive (Directive 92/43/EC) that are under threat in their natural range, have a small natural range or present outstanding examples of typical characteristics, that member states must maintain, protect or restore to favourable conservation status within the EU. Within the UK these habitats are protected through the designation of SACs.

minimise impacts on GWDTEs that would be most vulnerable to indirect permanent habitat changes. Effects on non-designated habitats are assessed as **Minor adverse (not significant)**.

7.1.6 Signs of protected species including badger (*Meles meles*), otter (*Lutra lutra*), pine marten (*Martes martes*), common lizard (*Zootoca vivipara*) and adder (*Vipera berus*) were identified within the Study Area, although the Proposed Development is assessed to result in no adverse effects upon them. No evidence of water vole (*Arvicola amphibius*) was identified in the Study Area, although this species has been recorded in the wider local area and as there is suitable habitat present, this species could be present albeit in very low numbers and not detected by previous surveys. Embedded mitigation relevant to identified ecological receptors include the development and implementation of a site-specific Construction Environmental Management Plan (CEMP), which will be used in conjunction with the Applicant's General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs). Furthermore, a suitably experienced Ecological Clerk of Works (ECoW) will be appointed to undertake pre-construction surveys for protected species and oversee construction works to minimise any potential effects on nature conservation interests.

7.1.7 No significant cumulative effects with any of the other grid connections that form part of the Connagill Cluster Grid Connections and their associated wind farms (consented and proposed) have been identified. A landscape scale Habitat Management Plan (HMP), combining the HMPs of the Connagill Cluster Grid Connection projects, is being developed in consultation with NatureScot to address the cumulative habitat losses of peatland, including within the boundaries of the Flow Country WHS and Caithness and Sutherland Peatlands SAC / Ramsar (see **Appendix 7.8**).

7.2 Introduction

7.2.1 This Chapter considers the potential impacts, including cumulative, of the Proposed Development on terrestrial (non-avian) ecology including designated sites, terrestrial and aquatic habitats and protected species during construction and operation, and assesses the significance of likely predicted residual effects. The assessment is based on best practice guidance including the Chartered Institute for Ecology and Environmental Management's (CIEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland (2018)[2]. This Chapter is supported by a number of Figures and Technical Appendices, as listed within the table of contents.

7.2.2 The scope of the ecological assessment and baseline conditions were determined through a combination of desk study, field surveys, and consultation with relevant organisations. This process established ecological features that could potentially be impacted by the Proposed Development.

7.2.3 This Chapter should be read in conjunction with, and is supported by, the following other chapters which are signposted as necessary throughout:

- **Chapter 8: Ornithology** – which identifies and assesses potential effects on birds, including the ornithology features of the Caithness and Sutherland Peatlands SPA, Ramsar and West Halladale SSSI;
- **Chapter 9: Soils, Geology and Water** – which identifies and assesses effects on hydrology, peat and soils, including hydrological effects on GWDTEs identified in the baseline section of this Chapter; and
- **Chapter 12: Forestry –** which provides further detailed information on forestry and felling proposals relevant to the losses of habitat identified as resulting from the construction and operation of the Proposed Development.

7.2.4 The assessment is based on the Proposed Development described in detail in **Chapter 3 - The Proposed Development** which comprises a CSE compound, approximately 4.5 km of 132 kV double circuit OHL

[2] CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. CIEEM, Winchester.

supported by steel lattice towers, and two trident 'H' wood poles to complete the connection to the existing Strathy North trident 'H' wood pole 132 kV OHL.

Statement of Qualifications

7.2.5 This ecological assessment has been carried out by RPS using guidance from NatureScot (formerly Scottish Natural Heritage, SNH, 2018)[3] and the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (2018)[2]. All staff contributing to this Chapter have professional experience in ecological impact assessment and ecological survey. A table presenting relevant qualifications and experience of key staff involved in the preparation of this Chapter is included in **Appendix 5.1: EIA Team**, contained within Volume 4 of this EIA Report.

7.3 Scope of Assessment

Defining the Study Area

7.3.1 A key consideration in assessing the effects of any development on flora and fauna is to define the areas of habitat and the species that need to be considered. This requires the identification of a potential zone of influence (ZoI), which is defined as those areas and resources that may be affected by biophysical changes caused by project activities, however remote from a site. The desk study area is shown on **Figure 7.1**.

7.3.2 In identifying these receptors, it is important to recognise that a development can affect flora and fauna directly (e.g. the land-take required) and indirectly, by affecting land beyond the development site (e.g. through noise generation or hydrological impacts). The approach that has been undertaken for this assessment is to identify 'sensitive ecological receptors' (species and habitats that are both valued and could be affected by the Proposed Development) and separately, to consider legally protected species.

Issues Scoped into Assessment

7.3.3 This Chapter considers the potential impacts of the Proposed Development, including cumulative effects with other relevant developments, on the following ecological features:

- **designated nature conservation sites** - impacts include direct (i.e., derived from land-take or disturbance to habitats or protected species) and indirect (i.e., habitat fragmentation and/or modification, including through changes caused by impacts to supporting systems such as groundwater or overland flow);
- **terrestrial habitats** - impacts include direct (i.e., derived from land-take) and indirect (i.e., habitat fragmentation and / or modification, and changes caused by impacts to supporting systems such as groundwater or overland flow);
- **aquatic habitats** - impacts are limited to the ecological impacts of changes in water conditions through potential pollution effects (hydrological impacts are considered in **Chapter 9** of this EIA Report); and
- **protected species and other notable species** - impacts considered include direct (i.e., loss of life; loss of key habitat; displacement from key habitat; barrier effects preventing movement to / from key habitats; and general disturbance) and indirect (i.e., loss / changes of / to food resources; population fragmentation; degradation of key habitat e.g., as a result of pollution).

Issues Scoped out Of Assessment

7.3.4 The following ecological features have been scoped out of this assessment as there is no potential for the Proposed Development to give rise to significant adverse effects on them:

[3] Scottish Natural Heritage and Historic Environment Scotland (2018). Environmental Impact Assessment Handbook - Version 5: Guidance for competent authorities, consultation bodies, and others involved in the Environmental impact Assessment process in Scotland.

- Freshwater habitats – the tower locations have been designed to accommodate a minimum 20 m offset from the nearest watercourse; however, a minimum 10 m buffer will be maintained between construction works and ponds and watercourses, including the River Strathy. SSEN has prepared General Environmental Management Plans (GEMPs) and those relevant to the Proposed Development are identified in **Appendix 3.5**. In addition, an outline CEMP has been prepared for the Proposed Development (**Appendix 3.7**) and it is anticipated that the implementation of a CEMP would be a condition to any grant of consent. The CEMP sets out legal obligations to prevent damage to the environment during construction activities, including those elements near to watercourses, and will be adhered to throughout construction. As such, no surface water pollution to any watercourse is anticipated and there is not considered to be any pathway for direct or indirect effects on aquatic habitats.
- Aquatic species – for the reasons set out above in respect of the lack of pathways for direct or indirect effects on aquatic habitats, fish species (including Atlantic salmon (*Salmo salmar*) and sea trout (*Salmo trutta*), freshwater pearl mussel (*Margaritifera margaritifera*) and the water beetle *Oreodytes alpinus* (this water beetle species is listed as 'noteworthy fauna' of the Caithness and Sutherland Peatlands Ramsar) have been scoped out of the ecological impact assessment.
- Great crested newt (*Triturus cristatus*) – the Proposed Development is outside the known range of this species in Scotland, and therefore it is scoped out of the ecological impact assessment as there is no reasonable likelihood of presence within the ZoI.
- European protected species of reptiles: sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) – the Proposed Development is outside the known range of these species in the UK and therefore they are scoped out of the ecological impact assessment as there is no reasonable likelihood of presence within the ZoI.
- Marsh saxifrage (*Saxifraga hirculus*) – this is a qualifying feature of the Caithness and Sutherland Peatlands SAC but there are no habitats within the ZoI of the Proposed Development that could support this species. Marsh saxifrage colonies are only found in wet flushes within the blanket bog in two parts of the SAC; one within Shielton Peatlands SSSI and one near Loch Ruard on the boundary of Blar nam Faoileag SSSI and Coire na Beinne Mires SSSI (NatureScot, 2021), both of which are more than 30 km south-east of the Proposed Development.
- Strathy Point SAC – this site is designated for its vegetated sea cliffs, and as this habitat is over 5 km from the Proposed Development, there is no pathway for effects on the qualifying habitats and this designated site has therefore been scoped out of the ecological impact assessment.
- River Naver SAC – the nearest part of this SAC (the Mallart River) is approximately 7.8 km west of the Proposed Development. The SAC is separated from the Proposed Development by extensive areas of peatland and forest and is a separate catchment to that of the River Strathy. There is therefore no pathway for effects on the populations of Annex II qualifying species freshwater pearl mussel and Atlantic salmon. This designated site has therefore been scoped out of the ecological impact assessment.
- Deer – deer may be present within the area of commercial forestry (Strathy Forest) impacted by the construction and operation of the Proposed Development. However, as species of deer are not conferred legal protection in terms of their conservation status, and are not notable, rare, or threatened within Scotland, they are not considered to be an Important Ecological Feature (IEF) for the purposes of impact assessment. Furthermore, the effects of construction and operation of the Proposed Development would be limited to localised displacement of deer only, and it is considered that there is no potential for the displacement of a small number of deer to significantly adversely affect peatland habitats within the Caithness and Sutherland Peatlands SAC / Ramsar. Deer are therefore scoped out of the ecological impact assessment.

7.4 Consultation and Scoping

7.4.1 To inform the scope of the assessment for the Proposed Development, consultation was undertaken with statutory and non-statutory bodies. **Table 7.1** summarises the scoping and consultation responses relevant to the terrestrial (non-avian) ecology assessment and provides information on where and / or how points raised have been addressed in this assessment.

7.4.2 Further details on consultation and scoping responses can be found in **Chapter 4 - Scope and Consultation**, and associated appendices of this EIA Report.

Table 7.1: Scoping Responses

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
NatureScot 12th April 2024	**Key issues** The proposal raises the following main issues, which will need to be carefully considered as part of the Environmental Impact Assessment (EIA): Impacts to protected sites: The proposal has the potential to significantly affect the following protected sites: • Caithness and Sutherland Peatlands Special Area of Conservation (SAC), • Caithness and Sutherland Peatlands Special Protection Area (SPA). The applicant should assess the direct and indirect impacts on these protected sites and their qualifying interests in context of their conservation / management objectives. The assessment should consider the impact of the proposal both as a single development and cumulatively with other relevant developments affecting these protected sites.	Assessment of the direct and indirect impacts on the Caithness and Sutherland Peatlands SAC (and Ramsar) is presented in Section 7.10. A Shadow Habitats Regulations Appraisal (SHRA) for the Caithness and Sutherland Peatlands SAC / Ramsar is included in **Appendix 7.6**. Potential impacts on the Caithness and Sutherland Peatlands SPA / Ramsar ornithology features are assessed in **Chapter 8** of this EIA Report (see also the SHRA for the Caithness and Sutherland Peatlands SPA, included in **Appendix 8.4**). The alternative options considered and reasons for identifying the proposed alignment and design solution is discussed in **Chapter 2 - The Routeing Process and Alternatives** of this EIA Report**.**
	Protected Areas ***Caithness and Sutherland Peatlands Special Area of Conservation (SAC)*** Habitats likely to be affected are wet heathland with cross-leaved heath and blanket bog. In principle, we would advise any disturbance to take place outside the SAC in order to maintain the SAC Conservation Objectives. An overhead line through the SAC would be very challenging and we would encourage alternative routes. From the information provided, we advise that the proposal for grid connection is likely to result in the loss of blanket bog in the site, the ability to actively form peat, maintain hydrology and the structure and function of the blanket bog. We therefore consider that a full EIA assessment of this proposal is unlikely to result in 'no likely significant effect' and mitigation is unlikely to result in 'no adverse effect on site integrity' in the appropriate assessment.	

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	For a full application we will require the following information so that we can comment with regards to NPF4 and our remit for protected areas. The information we require will include: • Habitat survey (National Vegetation Classification) (NVC))) and maps identifying areas / features mentioned in Annex 1 of our guidance. • Construction management plan detailing how construction methods will minimise impacts on peatland including direct disturbance and changes in hydrology. This should also include information on how maintenance and fault resolution will likely impact on the habitat. • Peat management plan. • Habitat management plan.	Detailed results from UKHab and NVC surveys are summarised in **Appendix 7.3 – Habitat Technical Report**. A habitat map showing the extent and distribution of NVC habitat types within the Study Area is displayed on **Figure 7.7**. An outline CEMP has been prepared (see **Appendix 3.7**). An Outline Peat Management Plan (PMP) has been prepared (see **Appendix 9.2).** Habitat Management Plan: an overarching HMP for the Connagill Cluster Grid Connections is being developed in consultation with NatureScot (see **Appendix 7.8**). This will aim to deliver landscape-scale habitat enhancement, and to mitigate the potential cumulative impacts on peatland habitat within the Caithness and Sutherland Peatlands SAC / Ramsar. This will also include measures to compensate for direct and indirect permanent impacts on peatland habitats outwith the SAC / Ramsar boundary.
	Proposed Flow Country World Heritage Site (WHS) The proposed connection project lies within this proposed WHS[4]. The site is being considered for WHS status due to it being the most outstanding example of a blanket bog ecosystem globally. The Outstanding Universal Value (OUV) of the site encompasses a number of attributes including: the blanket bog habitats, ecosystem processes and the bird and plant assemblages it supports. Where a proposal affects one or more of these attributes, this could result in impacts on the site's OUV. We note that the proposal lies within Class 1 and Class 2 peatland habitats. From the information provided, we advise that the proposal for grid connection is likely to result in a loss of size of blanket bog habitats, loss in ability to actively sequester carbon and potentially an ability to reduce water quality. We advise that the proposal is likely to have a significant effect on the proposed WHS.	A World Heritage Site Assessment has been undertaken for the Flow Country WHS (see **Appendix 7.7**). This was informed by assessment work presented in this Chapter and in the SHRA (**Appendix 7.6**) in respect of the potential impacts of the Proposed Development on the Caithness and Sutherland Peatlands SAC / Ramsar, which overlaps with the WHS boundary within the Proposed Development LoD. The WHS assessment has concluded that there would be no adverse effects on the WHS attributes.

[4] At the time of the Scoping consultation, the Flow Country was a candidate WHS, this has since been formally inscribed by UNESCO in July 2024

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
Scottish Environment Protection Agency (SEPA) 12th April 2024	As this is a relatively small scale proposal and the reason for EIA does not specifically seem to relate to SEPA's interests we have no site specific advice to provide and simply refer you and the developer to the relevant standing advice in our sepa-triage-framework-and-standing-advice.pdf which is equally applicable to Electricity Act applications. Notwithstanding this it is the applicant's responsibility to meet their obligations and mitigate environmental impacts under Schedule 9 of the Electricity Act 1989.	Comment is noted.
Royal Society for the Protection of Birds (RSPB) 12th April 2024 [comments pertaining to terrestrial ecology only, refer to Chapter 8: Ornithology for comments relating to avian interests]	**Bird Species of Conservation Concern and Designated Sites** The proposed OHL passes through the Caithness and Sutherland Peatlands Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar site and the West Halladale Site of Special Scientific Interest (SSSI). These are designated for their internationally and nationally important populations of birds and habitats. Due to likely significant effects on European Sites, the EIA Report must include sufficient information to inform an Appropriate Assessment by the competent authority, as required by The Conservation of Habitats and Species Regulations 2017.	Assessment of the direct and indirect impacts on the Caithness and Sutherland Peatlands SAC (and Ramsar) is presented in Section 7.10. A Shadow Habitats Regulations Appraisal (SHRA) for the Caithness and Sutherland Peatlands SAC / Ramsar is included in **Appendix 7.6**. Potential impacts on the Caithness and Sutherland Peatlands SPA/ Ramsar ornithology features are assessed in **Chapter 8** of this EIA Report (see also the SHRA for the Caithness and Sutherland Peatlands SPA, included in **Appendix 8.4**).
	Peat depth and habitat surveys should also be undertaken along the preferred route in order to inform the final alignment deviation choices.	A habitat map showing the extent and distribution of NVC habitat types within the Study Area is displayed on **Figure 7.7**. A peat probing campaign has been carried out across the project to establish peat depths and inform siting of infrastructure, as well as appropriate mitigation (see **Chapter 9** and its supporting appendices of this EIA Report).

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	Peatland and habitats The site is part of the wider Flow Country, internationally important for its blanket bogs which, when in a healthy condition, naturally sequester and store carbon. The SNH Carbon and Peatland Map 2016, identifies that the proposed OHL passes through significant areas of nationally important Class 1 (Nationally important carbon-rich soils, deep peat and priority peatland habitat / areas likely to be of high conservation value) and Class 2 (Nationally important carbon-rich soils, deep peat and priority peatland habitat. Policy 5 of NPF4 seeks to protect carbon-rich soils, restore peatlands and minimise disturbance to soils from development. Policy 4 of NPF4 seeks to protect, restore and enhance natural assets, including protected sites, and states that development proposals which by virtue of type, location or scale will have an unacceptable impact on the natural environment, will not be supported. Policy 55 of the Highland wide Local Development Plan gives a presumption against unacceptable peat disturbance and states that development proposals should demonstrate how they have avoided unnecessary disturbance, degradation or erosion of peat and soils. A peat depth survey should be undertaken in order to minimise impacts on peat by helping to avoid areas deeper than 0.5m. Horizontal directional drilling through bedrock should be considered for sensitive peatland habitats that cannot be avoided.	A peat probing campaign has been carried out across the project to establish peat depths and appropriate mitigation (see **Chapter 9** and its supporting appendices of this EIA Report). Horizontal directional drilling (HDD) would be technically very challenging to undertake and would require a large laydown and construction compound at either end of the HDD section(s). This could require large areas of peat to be cleared or disturbed. The alternative options considered and reasons for identifying the proposed alignment and design solution is discussed in **Chapter 2** of this EIA Report**.**

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	Flow Country World Heritage Site This site overlaps with the candidate Flow Country World Heritage Site[4]. The Highland Council's Flow Country Candidate World Heritage Site Planning Position Statement (April 2023), states that, developments within the WHS, must be assessed utilising the UNESCO Impact Assessment Guidance Toolkit (Section 5.14). Therefore, we recommend that this is undertaken alongside the EIA.	A World Heritage Site Assessment has been undertaken for the Flow Country WHS (see **Appendix 7.7**). This was informed by assessment work presented in this Chapter and in the SHRA in respect of the potential impacts of the Proposed Development on the Caithness and Sutherland Peatlands SAC / Ramsar, which overlaps with the WHS boundary within the Proposed Development LoD. The WHS assessment has concluded that there would be no adverse effects on the Flow Country WHS attributes. Since the scoping report was submitted the Flow Country WHS was formally inscribed by UNESCO in July 2024; therefore, the references throughout this document have been updated to reflect that it is no longer a candidate WHS.

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	Biodiversity Net Gain (BNG) / Biodiversity Enhancement and HMP We welcome the Applicant's commitment to Biodiversity Net Gain. NPF4 was adopted in February 2023, is now part of the Statutory Development Plan. Policy 3 Biodiversity requires developments to leave nature in a better state than before they took place. It states that, 'Development proposals for national or major development or for development that requires an Environmental Impact Assessment will only be supported where it can be demonstrated that the proposal will conserve and enhance biodiversity, including nature networks so they are in a demonstrably better state than without intervention'. It goes on to list a number of criteria which Applicants must demonstrate they have met, including 'significant biodiversity enhancements are provided, **in addition to** (emphasis added) any proposed mitigation'. Policy 3(b) states that the mitigation hierarchy should be followed before enhancement is identified, biodiversity enhancement should be significant and in addition to any proposed mitigation. Scottish Government draft guidance on Biodiversity and the implementation of policy 3b) was issued on 30 November 2023 and should be referred to. Only after impacts are mitigated / compensated for, can opportunities to enhance the site for biodiversity be taken. We encourage consideration of ways this can be delivered at as early a stage as possible and in a way which gives consideration to species, surrounding habitats and potential links to other land management practices.	The Applicant is committed to incorporating BNG into their projects and a BNG assessment will be provided an agreed upon with relevant consultees post submission of the application and prior to determination, secured by a condition of consent. Biodiversity Net Gains for the project will be set out in the overarching Habitat Management Plan (HMP) for the Connagill Cluster, which is being developed in consultation with NatureScot (see **Appendix 7.8**). This aims to deliver landscape-scale habitat enhancement in accordance with SSEN's BNG commitments, as well as to meet the requirements of NPF4 Policy 3.
	RSPB Scotland does not believe that biodiversity enhancement for development (as required by Policy 3 of NPF4) should be delivered within designated sites, except in exceptional circumstances, and any enhancement should be truly additional.	An overarching HMP for the Connagill Cluster is being developed in consultation with NatureScot to deliver landscape-scale habitat enhancement (see **Appendix 7.8**).

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	We support the overall aim of the Applicant in Section 6.5.4 of enhancing biodiversity and achieving biodiversity net gain and the preparation of an outline Habitat Management Plan (HMP), which will take into account HMPs for other developments in the surrounding area. However, opportunities for habitat enhancement through a BNG scheme should be implemented alongside the mitigation hierarchy, including avoiding damage to protected sites and species where possible. We suggest this HMP contains detailed ecological justification for any habitat management proposals and seek to enhance key habitats, such as blanket bog, occurring within the area.	As stated above, an overarching HMP for the Connagill Cluster is being developed in consultation with NatureScot to deliver landscape-scale habitat enhancement (see **Appendix 7.8**).
Northern District Salmon Fishery Board (NDSFB)	The NDSFB confirmed that the Scientific Advisor to the board has reviewed the relevant documentation and has advised that there is no mention of salmon or sea trout in the documentation. Whilst the Board does not envisage there would be any issues relating to their statutory responsibilities to protect and enhance salmon and salmon fisheries in its area, we would ask that the developer scope in salmon and sea trout, if only to discount them specifically in the Environmental Impact Assessment (EIA).	No pathway by which salmon or sea trout could be impacted by the Proposed Development were identified, and therefore these species, along with all other fish species, have been scoped out of the EIA (see Section 7.3).
The Highland Council 27th June 2024 [comments pertaining only to Ecology and Non-Designated Sites]	The EIAR should provide a baseline survey of the bird and animals (mammals, reptiles, amphibians, etc.) interest on the site. It needs to be categorically established what species are present on the entirety of the site (and its buffer zone), and where, before a future application is submitted. Further the EIAR should provide an account of the habitats present on the proposed development site. It should identify rare and threatened habitats, and those protected by European or UK legislation, or identified in national or local Biodiversity Action Plans.	The scope of ecology field surveys was agreed with NatureScot, and the ecological baseline defined through a combination of desk study data (utilising ecology survey data gathered for other wind farms and grid connections in the Strathy area that form part of the Connagill Cluster), and specific field surveys for the Proposed Development (see **Table 7.2**). A summary of the protected species baseline and evaluation is provided in **Table 7.4**. Detailed results from UKHab and NVC surveys are summarised in **Appendix 7.3 – Habitat Technical Report** and **Figure 7.7**.

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	Habitat enhancement and mitigation measures should be detailed, particularly in respect to blanket bog, in the context of both biodiversity conservation and the inherent risk of peat slide (see later). Details of any habitat enhancement programmes (such as native tree planting, stock exclusion, etc.) for the proposed site should be provided – it is noted that provision of appropriate biodiversity enhancement is mandatory under NPF4 Policy 3. It is expected that the EIAR will address whether or not the development could assist or impede delivery of elements of relevant Biodiversity Action Plans.	An overarching HMP for the Connagill Cluster Grid Connection projects is being developed in consultation with NatureScot to deliver landscape-scale habitat enhancement to meet the requirements of NPF4 Policy 3 (see **Appendix 7.8**). Furthermore, the Applicant is committed to incorporating Biodiversity Net Gain (BNG) into their projects and a BNG assessment will be provided an agreed upon with relevant consultees post submission of the application and prior to determination, secured by a condition of consent.
	The developer should submit a Peat Management Plan to overcome significant effects on peatland and Carbon Rich Soils, Deep Peat, and Priority Peatland Habitat (CPP). Attention is drawn to paragraph 4.34 on page 24 of the OWESG, which discusses peat and CPP.	An Outline Peat Management Plan has been prepared (see **Appendix 9.2).**
	We also expect an up to date National Vegetation Classification (NVC) Survey and a commitment to undertaken peatland restoration on an area of increased size to that of the application site.	NVC surveys of habitats within the Proposed Development boundary were undertaken in 2022 and 2024 (**Appendix 7.3**). An overarching HMP for the Connagill Cluster Grid Connection projects is being developed in consultation with NatureScot to deliver landscape-scale habitat enhancement to meet the requirements of NPF4 Policy 3 (see **Appendix 7.8**). This includes measures for peat restoration.
	The Environmental Impact Assessment Report (EIAR) should provide details of all direct, indirect, permanent, and temporary impacts to any bog habitats present on the site.	Permanent and temporary habitat losses are quantified in **Table 7.7** (habitats within the Caithness and Sutherland Peatlands SAC / Ramsar, which are also applicable to the West Halladale SSSI and Flow Country WHS due to the overlapping boundaries) and **Table 7.8** (non-designated habitats).

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	The EIAR should address the likely impacts on the nature conservation interests of all the designated sites in the vicinity of the proposed development. It should provide proposals for any mitigation that is required to avoid these impacts or to reduce them to a level where they are not significant. NatureScot can also provide specific advice in respect of the designated site boundaries for SACs and SPAs and on protected species and habitats within those sites. The potential impact of the development proposals on other designated areas such as SSSIs should be carefully and thoroughly considered and, where possible, appropriate mitigation measures outlined in the EIAR. NatureScot provides advice on the impact on designated sites.	Embedded mitigation / mitigation by design is described in Section 7.9; this summarises the measures taken to avoid and / or reduce harm to sensitive habitats including those within the Caithness and Sutherland Peatlands SAC / Ramsar, West Halladale SSSI and Flow Country WHS. The potential impacts of the Proposed Development are assessed in Section 7.10. Assessment of impacts on the qualifying features of the Caithness and Sutherland Peatlands SAC / Ramsar has been undertaken for the Proposed Development as presented in **Appendix 7.6**.
	If wild deer are present or will use the site an assessment of the potential impact on deer will be required. This should address deer welfare, habitats, and other interests.	Deer were scoped out of the EIA Report as there is no potential for the Proposed Development to give rise to significant adverse effects on them (see paragraph 7.3.4).
	The EIAR needs to address the aquatic interests within local watercourses, including downstream interests that may be affected by the development, for example increases in silt and sediment loads resulting from construction works; pollution risk/ incidents during construction; disturbance of spawning beds/ timing of works; and other drainage issues. The EIAR should evidence consultation input from the local fishery board(s) where relevant.	The Proposed Development would not directly impact any watercourses, and a minimum buffer of 10 m would be maintained between construction activities and watercourses. The towers have been designed to achieve a minimum offset of 20 m from watercourses. The potential for pollution to affect watercourses is assessed in respect of potential impacts to otter (a qualifying feature of the Caithness and Sutherland Peatlands SAC/ Ramsar) in Section 7.10.
	Further advice can be found in NatureScot's consultation response on ecology in relation to the surveys required and the adequacy of the work already undertaken.	This has been noted. As set out above, the scope of field surveys and adequacy of existing field data for other wind farm and grid connection schemes in the Strathy area has been agreed with NatureScot.
	The EIAR should include a map and assessment of impacts upon Groundwater Dependent Terrestrial Ecosystems (GWTDE) and buffers, these habitats are easily damaged by insensitive drainage.	Impacts on sensitive habitats (including GWDTE) are quantified and assessed in Section 7.10.

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	NPF4 is committed to delivering positive effects for biodiversity through development. Policy 3(b) states that, 'Development proposals for national, major and of EIA development should only be supported where it can be demonstrated that the proposal will conserve and enhance biodiversity, including nature networks within and adjacent to the site, so that they are in a demonstrably better state than without intervention, including through future management.' A draft or outline Habitat Management Plan (HMP) and Species Protection Plan (SPP) should be produced as part of the EIA, including any proposals for mitigation and enhancement in relation to important habitats and species. Any compensatory planting plans should be carefully considered an included in the HMP. The HMP should include a comprehensive monitoring programme for all habitat improvements, and breeding birds on the site. Remote sensing using radar or infra-red cameras should be considered, to help inform future development and decision making within the industry with regards to eagles. Lastly, the HMP (or other document) should also include a protocol for reporting collisions to NatureScot.	An overarching HMP for the Connagill Cluster Grid Connection projects is being developed in consultation with NatureScot to deliver landscape-scale habitat enhancement to meet the requirements of NPF4 Policy 3 (see **Appendix 7.8**). Furthermore, the Applicant is committed to incorporating Biodiversity Net Gain (BNG) into their projects. The Applicant has developed a series of SPPs in agreement with statutory consultees, including SEPA and NatureScot. These can be found in **Appendix 3.6: Species Protection Plans (SPPs)**.
	[Para 6.7.1 of the Scoping Report] It is proposed that potential effects of the Proposed Development on marsh saxifrage, which is a qualifying feature of the Caithness and Sutherland Peatland SAC, are scoped out of the assessment. Marsh saxifrage colonies are found in wet flushes within the blanket bog in two parts of the SAC (one within Shielton Peatlands SSSI and one near Loch Ruard on the boundary of Blar nam Faoileag SSSI and Coire na Beinne Mires SSSI) both of which are more than 30 km to the southeast of the Proposed Development (NatureScot, 202125). *[Para 6.7.2 of the Scoping Report] Marsh saxifrage is only found where green flushes of vegetation form within this SAC. This habitat is unusual within the SAC and is markedly different from the surrounding, heathery vegetation. There is not considered to be any pathway for any effect on marsh saxifrage colonies within the SAC due to direct or indirect impacts from the Proposed Development.* Given the protection of Marsh Saxifrage and the fact it is a qualifying feature of the Caithness and Sutherland Peatland SAC, it is the Planning Authority's view, that unless confirmed by NatureScot this shall be included within any EIA submitted.	NatureScot has agreed that marsh saxifrage can be scoped out of the EIA Report (see **Chapter 4** and its supporting appendices).

Organisation & Date	Summary of Consultation Response	Where Addressed in the EIA Report
	[Para 6.7.3 of the Scoping Report] It is further proposed that potential impacts on the Strathy Point SAC are scoped out as, based on the separation distance and qualifying features of the SAC, there is not considered to be any pathway for effects. Unless confirmed by NatureScot, potential impacts on the Strathy Point SAC shall be included within any submitted EIA.	NatureScot has confirmed that this designated site can be scoped out of the EIA Report (see **Chapter 4** and its supporting appendices).
	[Para 6.7.4 of the Scoping Report] Additionally, all IEFs identified in the EcIA as being of Local or lower importance, and/or for which there is not considered to be any potential for significant effects from the Proposed Development, will be scoped out of the assessment. This should be scoped in and demonstrated within any EIA submitted.	The IEFs scoped into the ecological impact assessment, and the rationale for scoping in or out, is presented in **Table 7.4**. The scope of the assessment has been agreed with NatureScot (see **Chapter 4** and its supporting appendices).
	[Para 6.7.5 of the Scoping Report] As noted in Section 6.3.14, there is not considered to be any pathway for direct or indirect effects of the Proposed Development on aquatic species, including fish species and freshwater pearl mussel. It is therefore proposed that potential effects of the Proposed Development on aquatic ecological features, including those that are qualifying features of the Caithness and Sutherland Peatlands SAC and Ramsar site, are scoped out of the assessment. As detailed above, given this is a protected designation with qualifying interests it is considered by the Planning Authority, unless confirmed by NatureScot, this shall be included within any future submission.	The Proposed Development would not directly impact any watercourses, and a minimum buffer of 10 m would be maintained between construction activities and watercourses. The towers have been designed to achieve a minimum offset of 20 m from watercourses. The potential for pollution to watercourses is assessed in respect of potential impacts to otter (a qualifying feature of the Caithness and Sutherland Peatlands SAC/ Ramsar) in Section 7.10.

Study Area

7.4.3 The Study Area encompasses the area over which all desk-based and field data were gathered to inform the assessment presented in this Chapter. The Study Area comprises habitats directly impacted by the Proposed Development, and incorporates temporary and permanent infrastructure, including Limits of Deviation (LOD) for the OHL, CSE compound and access tracks and an appropriate buffer (see **Figure 7.1**). The Study Area therefore included land within 100 m of the proposed OHL alignment and a minimum of 150 m from proposed new access tracks.

7.5 Legislation, Policy and Guidance

7.5.1 This assessment has been undertaken with reference to relevant national and local legislation, policy and guidance, notably the following (further details are provided in **Appendix 7.1**):

Legislation Context

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (i.e. the Habitats Directive) (European Commission, 1992);
- Environmental Impact Assessment Directive 85/337/EEC, as amended (EIA Directive) (as subsequently codified by Directive 2011/92/EU, as amended by Directive 2014/52/EU);
- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017;
- The Wildlife and Countryside Act 1981 (as amended (WCA) (UK Government, 1981);
- The Conservation (Natural Habitats &c.) Regulations 1994 (as amended in Scotland) (i.e. the Habitats Regulations) (UK Government, 1994);
- Conservation of Habitats and Species Regulations 2017 (in relation to certain specific activities (reserved matters) including consents granted under Sections 36 and 37 of the Electricity Act 1989) (UK Government, 2017)
- The Wildlife and Natural Environment (Scotland) Act 2011 (as amended) (WANE Act) (Scottish Government, 2011);
- Nature Conservation (Scotland) Act 2004 (as amended) (NCA) (Scottish Government, 2004); and
- The Protection of Badgers Act 1992 (as amended) (UK Government, 1992).

Policy Context

- National Planning Framework 4 (NPF4) (Scottish Government, 2023); and
- Highland-wide Local Development Plan (HwLDP) 2012.

Technical Guidance and Information

- Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition) (Bat Conservation Trust, 2023);
- Guidance for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine Version 1.2 Updated April 2022 (CIEEM, 2018);
- Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems (Scottish Environmental Protection Agency, 2017);
- Highland Nature (2021) Biodiversity Action Plan 2021 – 2026; and
- The Scottish Biodiversity List (SBL) (Scottish Government, 2013).

7.6 Methodology

Desk Study

7.6.1 The following freely downloadable data from the following sources were searched for information on statutory and non-statutory designated sites, the presence of native woodland habitat and the distribution of species of conservation concern:

- Highland Biological Recording Group (HBRG);
- Scottish Natural Heritage;
- Scottish Wildlife Trust;
- Flow Country Rivers Trust;
- Botanical Society of Britain and Ireland;
- Joint Nature Conservation Committee (JNCC) website (https://www.jncc.gov.uk/);
- NatureScot Site Link website (https://sitelink.nature.scot/home/);
- NatureScot Natural Spaces (https://gateway.nature.scot/natural-spaces/datasets/);
- Habitat Map of Scotland (HabMos) website (https://www.nature.scot/landscapes-and-habitats/);
- Native Woodland Survey of Scotland data (https://forestry.gov.scot/support-regulations/scottish-forestry-map-viewer/);
- Carbon and Peatland Map, available online (https://map.environment.gov.scot/soil_maps/);
- Open source data from the National Biodiversity Network (https://nbnatlas.org) (NBN Atlas); and
- Large-scale 1:10,000 Ordnance Survey (OS) maps in conjunction with colour 1:25,000 OS map (to determine the presence of ponds and other features of nature conservation interest).

7.6.2 In addition, a review of existing publicly available data from developments in the area such as wind farms and grid connections within the Strathy area commonly referred to as the 'Connagill Cluster' (which includes Strathy South Wind Farm, Strathy Wood Wind Farm, Kirkton Energy Park and Melvich Wind Energy Hub and their associated grid connections) was undertaken as a desk-based exercise to identify habitats and species of conservation interest in the wider area. The proposed Armadale Wind Farm was originally included within the Connagill Cluster Grid Connections project, however, in May 2024 the developer of the proposed Armadale Wind Farm withdrew the section 36 application and consequently no longer require a grid connection. As such, this project has been removed from the Connagill Cluster Grid Connections. Nevertheless, the survey data collected for this development is potentially relevant to the desk study for the Proposed Development and therefore has been included within this Chapter.

7.6.3 The following reports were examined for relevant data:

- Melvich Wind Energy Hub: Environmental Impact Assessment Chapter 7 – Ecology and Nature Conservation dated March 2023 (Belltown Power, 2023)[5]
- Armadale Wind Farm: Further Environmental Impact Assessment Report Volume 1, Chapter 7 – Ecology, dated May 2023 (Arcus Consultancy Services Ltd, 2023)[6]
- Kirkton Energy Park: Environmental Impact Assessment Report Volume 2, Chapter 8 – Ecology, dated November 2022 (SLR, 2022)[7]
- Strathy Wood Wind Farm: Environmental Statement Volume 1, Chapter 8 – Ecology, dated November 2013 (EON, 2013)[8]

[5] https://melvichwindenergyhub.com/
[6] https://armadalewindfarm.co.uk/resources/
[7] https://kirktonwindfarm.co.uk/
[8] https://www.energyconsents.scot/ApplicationDetails.aspx?cr=EC00005239

- Strathy South Wind Farm; Environmental Impact Assessment Report Volume 2, Chapter 9 – Ecology (non-avian) (SSE, 2020)[9]

7.6.4 Further information on the nature conservation features that have the potential to be affected by the Proposed Development was obtained through searches of internet sources (e.g. UK Biodiversity Action Plans (UKBAP), Scottish Biodiversity List (SBL), Local Biodiversity Action Plans (LBAP)) and relevant published literature (i.e. relevant guidance documents and scientific papers). The Proposed Development falls within the area covered by the Highland Nature Biodiversity Action Plan 2021 - 2026.

Field Survey

7.6.5 A large amount of baseline habitat and protected species data has been collected through field surveys for other consented and proposed wind farms and their grid connections in the Connagill Cluster (see above), the results of which were reviewed as part of the desk-based study. Field survey data for these developments cover the period 2007 to 2022.

7.6.6 In addition to data collected in the wider local area, habitat surveys for the Proposed Development were undertaken in 2022 and 2024, and specific protected surveys for the Proposed Development were undertaken in 2021 and 2022.

7.6.7 The survey areas for the field surveys are illustrated on **Figure 7.3: Protected Species Survey Area** and **Figure 7.4: Habitats Survey Area**. Static bat recorder survey locations are shown on **Figure 7.5**.

7.6.8 A summary of the field surveys that have been used to inform this ecological impact assessment is provided in **Table 7.2** below, with further details in **Appendix 7.3 (Habitats)**, **Appendix 7.4 (Protected Species)** and **Appendix 7.5 (Bats)**.

Table 7.2: Summary of Ecology Field Surveys

Ecology Feature	Scope	Survey Area	Date
Habitats	Phase 1 Habitat surveys	Strathy North Wind Farm and projects in the Connagill Cluster including Strathy South Wind Farm and Strathy Wood Wind Farm, and associated infrastructure and grid connections.	2007 - 2013
	Phase 1 Habitat survey	Proposed Development and 100 m buffer	2022
	National Vegetation Classification (NVC) survey	Proposed Development and 100 m buffer	2022
		Track through Strathy Forest	2024
Bats (foraging / commuting)	Activity surveys (walked transects and static detector deployment)	Strathy Wood Wind Farm	2011 and 2012
	Activity surveys (walked transects and static detector deployment)	Strathy North Wind Farm	2016

[9] https://www.energyconsents.scot/ApplicationDetails.aspx?cr=ECU00002133

Ecology Feature	Scope	Survey Area	Date
	Activity surveys (static detector deployment)	Armadale Wind Farm	2019
	Habitat assessment survey and activity surveys (static detector deployment)	Kirkton Energy Park	2020 and 2021
	Habitat assessment survey and activity surveys (static detector deployment)	Melvich Wind Energy Hub	2022
	Habitat assessment survey	Proposed Development	2022
	Activity surveys Static detector deployments in 8 locations for 10 nights per deployment	Proposed Development	2022
Bats (roosting)	Preliminary bat roost assessment	Strathy Wood Wind Farm	2011 and 2012
	Emergence survey	Braerathy Lodge (Strathy Wood Wind Farm)	2011
	Roost searches and radio-tracking	Strathy North Wind Farm	2016
	Habitat appraisal to identify potential roost features.	Proposed Development and 30 m buffer	2022
Otter and water vole	Field signs survey	Strathy North Wind Farm and 200 m buffer	Various surveys for planning application and pre-construction 2007 - 2013
	Field signs survey	Strathy Wood Wind Farm including 500 m buffer of all proposed infrastructure	2011
	Field signs survey	Armadale Wind Farm including 200 m buffer	2019
	Field signs survey	Kirkton Energy Park including 250 m buffer	2020 and 2021
	Field signs survey	Melvich Wind Energy Hub including 250 m buffer	2022
	Field signs survey	Proposed Development boundary and 200 m buffer (for otter) and 30 m buffer (for water vole), plus 100 m upstream and downstream of watercourse crossing points	2022

Ecology Feature	Scope	Survey Area	Date
Pine marten and wildcat	Field signs survey	Strathy North Wind Farm and 250 m buffer	Various surveys for planning application and pre-construction 2007 - 2013
	Field signs survey	Strathy Wood Wind Farm including 500 m buffer of all proposed infrastructure	2011
	Field signs survey	Armadale Wind Farm including 250 m buffer	2019
	Field signs survey	Kirkton Energy Park including 250 m buffer	2020 and 2021
	Field signs survey	Melvich Wind Energy Hub including 250 m buffer	2022
	Field signs survey	Proposed Development and up to 250 m buffer	2022
Red squirrel	Field signs survey	Armadale Wind Farm and 50 m buffer	2019
	Field signs survey	Proposed Development and up to 250 m buffer	2022
Badger	Field signs survey	Strathy North Wind Farm and 100 m buffer	Various surveys for planning application and pre-construction 2007 - 2013
	Field signs survey	Strathy Wood Wind Farm including 500 m buffer of all proposed infrastructure	2011
	Field signs survey	Armadale Wind Farm including 100 m buffer	2019
	Field signs survey	Kirkton Energy Park including 250 m buffer	2020 and 2021
	Field signs survey	Melvich Wind Energy Hub including 250 m buffer	2022
	Field signs survey	Proposed Development and up to 50 m buffer	2022

Assessment of Effects

7.6.9 This assessment has been undertaken in accordance with the current ecological impact assessment guidance detailed by the CIEEM (CIEEM, 2018)[2]. Further details are provided in **Appendix 7.2: Ecological Impact Assessment Methodology**.

7.6.10 Ecological features that are important and potentially affected by the Proposed Development are referred to as Important Ecological Features (IEF), and these features are scoped into the Ecological Impact Assessment. The IEFs are determined based on CIEEM guidance and professional judgement and can include for example international and national statutory designated sites, local non-statutory designated sites, UK Priority Species and Habitats and Red Listed, Rare and Legally Protected Species. Other habitats and species may not be designated/ legally protected, but may be locally rare or threatened, or provide a key migratory corridor and are therefore judged to be important.

7.6.11 The assessment of the significance of predicted effects on IEFs is based on the 'sensitivity' of a receptor and the nature and magnitude of the impact that the Proposed Development will have on it. Effects on biodiversity may be direct (e.g. the loss of species or habitats), or indirect (e.g. effects due to noise, dust, or disturbance) on receptors located within or outside the Study Area.

7.6.12 The overall significance of effect is defined using a combination of magnitude and sensitivity. It also takes into account:

- duration (short, medium, long term);
- reversibility;
- whether the effect is positive / negative, indirect / direct;
- performance against environmental standards; and
- compatibility with environmental policies, as appropriate.

Limitations to the Assessment

7.6.13 As stated above, baseline ecology field surveys were undertaken in 2022 for the Proposed Development and therefore the data are now two years old. However, it was agreed with NatureScot at the pre-scoping stage, that these data are sufficient to inform the ecological impact assessment for the Proposed Development, particularly given the large amount of ecology baseline data that has been recorded for the existing and consented wind farms within the area plus their associated grid connections (commonly referred to as the 'Connagill Cluster Grid Connections'), and which have also informed the ecological impact assessment for these developments. Further details on the consultation undertaken with NatureScot is provided in **Chapter 4** of this EIA Report and is summarised **in Table 7.1**.

7.6.14 No further limitations to the assessment completed for the Proposed Development were identified. As required by the relevant professional guidance (CIEEM, 2018), the precautionary principle has been adopted when undertaking the assessment to ensure that conclusions on predicted residual effects are robust and realistic. Any assumptions made regarding effects to IEFs are based on current guidance, scientific knowledge, and the expert professional opinion of the author of this Chapter and are therefore deemed appropriate in the context of the Site.

7.7 Baseline Conditions

Designated Sites

7.7.1 A search for the following statutory designated nature conservation sites was completed using Geographic Information System (GIS) data available on the NatureScot SiteLink website:

- Sites of international importance i.e. SACs and Ramsar sites within 10 km of the Proposed Development; and
- Sites of national importance i.e. SSSI and National Nature Reserves (NNRs) designated for ecology features within 2 km of the Proposed Development.

7.7.2 **Figure 7.2** provides an overview of the results of this desk-based assessment and the designated sites present in proximity to the Proposed Development.

7.7.3 The Proposed Development crosses a section of the Caithness and Sutherland Peatlands SAC / SPA / Ramsar (although the SPA designated features are considered within **Chapter 8** of this EIA Report), the boundaries of which are mostly overlapping. This vast area of designated peat bog and wetland habitat covers approximately 145,000 ha[10] (with a proposed extension consulted on by NatureScot in 2022 for an extension by a further 2,446 ha). The SAC / SPA / Ramsar is underpinned by ten SSSIs, of which the Proposed Development crosses part of the West Halladale SSSI. The Caithness and Sutherland Peatlands SAC / SPA / Ramsar designation 'wraps around' Strathy Forest, with the boundary nearest to the Proposed Development extending to the eastern bank of the River Strathy. The existing access track to the Strathy Wood Wind Farm on-site substation crosses through the Caithness and Sutherland Peatlands SAC / SPA / Ramsar and West Halladale SSSI. The vast expanse of peatland is also within the Flow Country World Heritage Site (WHS), the boundary of which is mostly (although not entirely) overlapping with the Caithness and Sutherland Peatlands SAC / SPA / Ramsar designation.

7.7.4 A summary of the designated sites identified within these search areas are presented in **Table 7.3** (listed in order of proximity to the Proposed Development).

[10] Caithness and Sutherland Peatlands SAC = 145,960.53 ha; Caithness and Sutherland Peatlands SPA = 147,726.54 ha; Caithness and Sutherland Peatlands Ramsar = 143,502.79 ha

Table 7.3: Statutory Designated Sites within 10 km (SACs / Ramsar's) and 2 km (SSSIs / NNRs) of the Proposed Development

Site	Designation	Proximity to nearest part of Proposed Development	Qualifying Features (non-avian)	Scoped into EcIA?
Caithness and Sutherland Peatlands	SAC	0 km (overlaps the Proposed Development)	Annex I habitats of the EC Habitats Directive that are a primary reason for site designation: • Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea* (Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels); • Natural dystrophic lakes and ponds (Acid peat-stained lakes and ponds (also known as 'dubh lochans')); and • Blanket bogs (Priority feature). Other Annex I habitats present as a qualifying feature but not a primary reason for designation: • Northern Atlantic wet heaths with *Erica tetralix* (Wet heathland with cross-leaved heath); • Transition mires and quaking bogs (Very wet mires often identified by an unstable 'quaking' surface (also known as ladder fen)); and • Depressions on peat substrates of the *Rhynchosporion*. Annex II species that are a primary reason for site designation: • Otter (*Lutra lutra*); and • Marsh saxifrage (*Saxifraga hirculus*).	Yes
Caithness and Sutherland Peatlands	Ramsar	0 km (overlaps the Proposed Development)	The site qualifies under Ramsar criterion 1 by virtue of it containing a variety of wetland types: • Blanket bog;	Yes

Site	Designation	Proximity to nearest part of Proposed Development	Qualifying Features (non-avian)	Scoped into EcIA?
			• Mire communities; • Oligotrophic lochs; • Dystrophic lochs; • Lochans and pools; and • Wet heath. The site also qualifies under Ramsar criterion 2 as it supports a number of rare species of wetland plants and animals: • Bog orchid (*Hammarbya paludosa*); • Lindberg's bog-moss (*Sphagnum lindbergii*); • Olive bog-moss (*Sphagnum majus*); • *Oreodytes alpinus* (a water beetle species); • Freshwater pearl mussel (*Margaritifera margaritifera*); and • Otter.	
Flow Country	WHS	0 km (overlaps the Proposed Development)	Nominated for its exceptional blanket bog and the biodiversity (bird and plant life) it supports. Of the 187,026 ha proposed as a WHS, 73% is already covered by existing designations (including the Caithness and Sutherland Peatlands SAC / SPA / Ramsar and its component SSSIs).	Yes
West Halladale	SSSI	0 km (overlaps the Proposed Development)	Component of the Caithness and Sutherland Peatlands SAC / SPA / Ramsar Non-avian notified features: • Blanket bog.	Yes

Site	Designation	Proximity to nearest part of Proposed Development	Qualifying Features (non-avian)	Scoped into EcIA?
Strathy Bogs	SSSI	1.36 km south-west	Component of the Caithness and Sutherland Peatlands SAC / SPA / Ramsar Notified features: • Blanket bog.	No – there are no pathways by which the SSSI feature could be impacted.
Lochan Buidhe Mires	SSSI	1.88 km west	Component of the Caithness and Sutherland Peatlands SAC / SPA / Ramsar Non-avian notified features: • Blanket bog	No – there are no pathways by which the SSSI feature could be impacted.
Strathy Point	SAC	5.06 km north	Annex I habitat of the EC Habitats Directive that is a primary reason for site designation: • Vegetated sea cliffs of the Atlantic and Baltic Coasts (Vegetated sea cliffs)	No – as set out in Section 7.3, there are no pathways by which the qualifying habitat of the SAC could be impacted.
River Naver	SAC	7.8 km west	Annex II species that are a primary reason for selection of this site: • Freshwater pearl mussel – along with the River Borgie, this site represents the northern extreme for the species in the UK. The Mallart River, a tributary of the River Naver also supports this species, with juveniles recorded indication a successful breeding population. • Altlantic salmon – the River Naver and its tributary the Mallart River support good salmon populations and along with the River Borgie and River Thurso are representative of the northerly part of the species' range in the UK.	No – as set out in Section 7.3, there are no pathways by which the qualifying species of the SAC could be impacted.

Habitats

7.7.41 The Site comprises of a mosaic of blanket bog and wet heath habitats (see **Figure 7.7**) adjacent to the River Strathy. The wider landscape comprises an extensive coniferous plantation woodland block to the west of the River Strathy (Strathy Forest) and further blanket bog habitat to the east, which is within the Caithness and Sutherland Peatlands SAC / Ramsar, West Halladale SSSI and the Flow Country WHS. Detailed descriptions of the habitats present within the Study Area, along with an assessment of their condition and the aggregate areas covered are provided in **Appendix 7.3: Habitat Technical Report**. Summaries of the relevant habitats present are provided in the following paragraphs.

7.7.42 The majority of blanket bog habitats correspond to the M17 *Trichophorum germanicum-Eriophorum vaginatum* mire, with some stands classified to the M17a *Drosera rotundifolia-Spahgnum* species or the M17b *Cladonia* species sub-communities. Smaller areas of M20 *Eriophorum vaginatum* and M25 *Molinia caerulea-Potentilla erecta* mire were also identified. The wet heath consisted of M15 *Trichophorum germanicum-Erica tetralix mire*, with the M15c *Cladonia* species sub-community most frequent. Adjacent stands of M25a *Molinia caerulea-Potentilla erecta* mire, *Erica tetralix* sub-community, were likely to represent modified wet heath habitat. It should be noted that the blanket bog and wet heath habitats present showed effects from high browsing pressure by herbivores and their condition was assessed as moderate.

7.7.43 Smaller stands of other habitats included areas of MG9 *Holcus lanatus-Deschampsia cespitosa* damp grassland and MG10 *Holcus lanatus-Juncus effusus* rush-pasture in the south of the Proposed Development, alongside areas of plantation and clear-fell. Stands of bracken (U20 *Pteridium aquilinum-Galium saxatile* community) were present along the sides of streams, and areas of acid flush corresponding to the M6 *Carex echinate-Sphagnum fallax / denticulatum* mire community were recorded crossing the Proposed Development in places, some classified as the M6c *Juncus effusus* sub-community. Occasional stands of W23 *Ulex europaeus-Rubus fruticosus* gorse scrub were identified, and fragments of H10 *Calluna vulgaris-Erica cinerea* dry heath, W1 *Salix cinerea-Galium palustre* scrub, and U4b *Festuca ovina-Agrostis capillaris-Galium saxatile* dry acid grassland, *Holcus lanatus-Trifolium* repens sub-community were also recorded in very limited quantities.

Protected Species

7.7.44 Desk study records from HBRG were obtained from a data search within 10 km of the Strathy South Wind Farm in 2019, the boundary of which is partly overlapping with the Proposed Development. HBRG returned only a small number of records for protected species, all of which were >10 km from the nearest part of the Proposed Development.

7.7.45 A review of all protected species surveys completed for nearby developments associated with the Connagill Cluster Grid Connection projects and their associated wind farms was completed (see paragraph 7.6.2). This identified that badger, otter, water vole, pine marten and common lizard are present in the wider landscape surrounding the Proposed Development where habitats are suitable to provide appropriate refugia, foraging and commuting opportunities.

7.7.46 A summary of the protected species baseline and nature conservation evaluation is provided in **Table 7.4** below. This table also identifies the IEFs that have been taken forward for ecological impact assessment. Further details on the desk study and field survey methods, and the survey results are provided within **Appendix 7.4: Protected Species Technical Report** and **Appendix 7.5: Bat Technical Report**. **Figure 7.6** provides an overview of the protected species survey results from surveys completed in 2021 and 2022 within the Study Area and across the wider Connagill Cluster, which includes grid connections between the wind farms at Strathy South, Strathy Wood, Kirkton Energy Park and Melvich Wind Energy Hub. As described in paragraph 7.6.2, the proposed Armadale Wind Farm was originally included within the Connagill Cluster Grid Connections project, however the wind farm section 36 application has been withdrawn and consequently a grid

connection is no longer required. As such, this project has been removed from the Connagill Cluster Grid Connections. Nevertheless, the protected species survey data collected for this development is potentially relevant to the desk study for the Proposed Development and therefore has been included within this Chapter.

Table 7.4: Summary of Protected Species Baseline and Evaluation

Species	Desk Study Summary	Baseline Field Survey Summary	Nature Conservation Value	Technical Appendix	Scoped into EcIA?
Bats (roosting)	Bat roost surveys undertaken for the Strathy Wood Wind Farm and Strathy South Wind Farm identified small (i.e. low numbers of bats) common pipistrelle (*Pipistrellus pipistrellus*) roosts at the following locations: • Braerathy Lodge (NC 823 561) in 2011 – within the Proposed Development LoD boundary near to the consented Strathy Wood Wind Farm on-site Substation; and • Croft House (NC 792 488) in 2019, which is approximately 7.8 km south of the Proposed Development boundary. Bat roost surveys for the Strathy North Wind Farm in 2016 identified roosts at the following locations:	Braerathy Lodge was demolished in 2024 and therefore the common pipistrelle roost at this location has not been taken forward as an IEF for ecological impact assessment. Common pipistrelle roosts at Dallangwell Cottage, Bowside Lodge and Stock Shed, which are just outside the Survey Area, are assumed to remain present. There is no other potentially suitable roosting habitat within the LoD.	Local (Low)	**Appendix 7.5**	Yes However, the roost at Bowside Lodge is scoped out on the basis that it is c. 1 km from the Proposed Development and therefore would not be affected by construction noise / visual impacts. Similarly, roosts at Croft House and Dyke are also scoped out on the basis they are well outside the ZoI of any potential noise / visual disturbance.

Species	Desk Study Summary	Baseline Field Survey Summary	Nature Conservation Value	Technical Appendix	Scoped into EcIA?
	• Potential Daubenton's (*Myotis daubentonii*) and brown long-eared (*Plecotus auritus*) roost in a disused building at Dyke (NC 870 503) approximately 6 km south-east of the Proposed Development. • Small numbers of common pipistrelles roosting in several buildings at Bowside Lodge (NC 829 610) approximately 1 km north of the Proposed Development. • Small number of common pipistrelles roosting at Dallangwell Cottage (NC 825 598) approximately 150 m west of the Proposed Development. • Small number of common pipistrelles roosting at Stock Shed (NC 830 859) approximately 100 m east of the Proposed Development.				
Bats (foraging / commuting)	One record (a sighting) of common pipistrelle bat at NC 82 60, which is c. 300 m north-west of the Proposed Development. Activity surveys for other wind farms and grid connections in the Connagill Cluster recorded common pipistrelle, soprano pipistrelle (*P. pygmaeus*), *Myotis* species and Daubenton's bat. Levels of activity were generally low or very low. Surveys for Strathy Wood Wind Farm in 2016 recorded higher levels of activity around Braerathy Lodge and the River Strathy.	Automated detector surveys of the Proposed Development site in 2022 recorded common pipistrelle, soprano pipistrelle and *Myotis* bat species. Common pipistrelle was the species recorded most frequently, with the highest levels of activity approximately 700 m north-east of Braerathy Lodge near the southern end of the Proposed Development (which may be individuals from the previously identified common pipistrelle roost at Braerathy Lodge). Levels of bat activity by other bat species and at other survey locations were low.	Local (Low)	**Appendix 7.5**	No – the Proposed Development will not impact any bat foraging or commuting habitat, and there will be no nighttime working requiring task lighting that could disturb foraging / commuting bats.

Species	Desk Study Summary	Baseline Field Survey Summary	Nature Conservation Value	Technical Appendix	Scoped into EcIA?
Badger (*Meles meles*)	The HBRG desk study returned one record of badger at Rimsdale (NC 74 41), which is approximately 18 km south-west of the Proposed Development. Two badger setts were identified within the boundary of the Strathy North Wind Farm, one of which was closed under licence prior to construction of the wind farm (the other was active when most recently surveyed in 2023). Field signs of badger (snuffle holes / foraging signs) were recorded during surveys for Strathy Wood Wind Farm. This included badger activity recorded in close proximity to the existing access track (NC 829 575) and on the bank of the River Strathy (NC 822 562), close to Braerathy Lodge at the southern end of the Proposed Development.	Areas of woodland and woodland edge habitat could provide suitable habitat for badger, and field signs of this species have been recorded at other existing, consented and proposed wind farm development sites in the area. Species assumed present in the wider local area, although no setts have been recorded in areas surveyed around the consented / existing wind farms at Strathy Wood.	Less than Local (Very Low)	**Appendix 7.4**	No – standard construction phase mitigation (as set out in **Appendix 3.6: Species Protection Plans**) will address any potential risk to this common and widespread species.
Otter (*Lutra lutra*)	The HBRG desk study returned one record of otter, which was on the River Naver at Bettyhill (NC 705 608) approximately 13 km north-west of the proposed Development. Several otter spraints, couches and feeding remains were recorded on the River Strathy and Halladale River during surveys in 2021 for relevant elements of the Connagill Cluster Grid Connection project. Two holts were recorded at NC 894 603 on the Halladale River but were not considered to be natal (breeding) holts; these are approximately 6 km north-east of the site. Otter is a designated feature of the Caithness and Sutherland Peatlands SAC / Ramsar, which	Several otter couches and spraints were recorded on the River Strathy within the Proposed Development Survey Area, although no holts were recorded. It is assumed that otter is widespread throughout the River Strathy and suitable tributaries based on the results of surveys in the wider local area.	International (Very High) This is a qualifying feature of the SAC / Ramsar	**Appendix 7.4**	Yes

Species	Desk Study Summary	Baseline Field Survey Summary	Nature Conservation Value	Technical Appendix	Scoped into EcIA?
	indicates the importance of the wider local area for the species.				
Water vole	The HBRG desk study returned no records of water vole. There are records of this species on the Allt an Reidhe Ruaidh, approximately 2 km north-east of the Proposed Development, which is a tributary of the River Strathy. Surveys for the Melvich Wind Energy Hub recorded small colonies of water vole at Alltan Domhaich and Allt na Cleite, which are approximately 5 km north-east of the proposed Development (these watercourses are not connected to the River Strathy and each flows straight out to the sea just west of Portskerra) and some minor tributaries of the Halladale River.	Surveys for water vole on the River Strathy were undertaken in August and September 2022. No evidence of water vole was recorded within the Proposed Development Survey Area, although the habitat is suitable for the species and the presence of low numbers that were not detected during the surveys cannot be discounted, given that there are known populations of water vole in the wider local area.	Regional (Medium) (if present)	**Appendix 7.4**	No – there will be no impacts on watercourses that may support water vole.
Red squirrel (*Sciurus vulgaris*)	The HBRG desk study returned no records of red squirrel. This species was not recorded during surveys for wider Connagill Cluster surveys.	The Proposed Development is outside the current range of red squirrel in Scotland and therefore it is concluded that this species is likely absent.	Likely absent	**Appendix 7.4**	No – species concluded likely absent.
Pine marten (*Martes martes*)	The HBRG desk study returned one record of pine marten at Bettyhill (NC 71 57), which is approximately 13 km west of the proposed Development. Several pine marten scats were recorded in the area during surveys for wider Connagill Cluster surveys most recently in 2021. Pine marten was also sighted during the construction of the Strathy North Wind Farm in 2014.	Pine marten scats were recorded in the southern part of the Survey Area along the banks of the River Strathy. Areas of woodland and woodland edge habitat provide suitable habitat for pine marten and field signs of this species have been recorded at other existing and proposed wind farm development sites in the area. This species is therefore assumed widespread and present in suitable habitat in the Survey Area.	Regional (Medium)	**Appendix 7.4**	Yes

Species	Desk Study Summary	Baseline Field Survey Summary	Nature Conservation Value	Technical Appendix	Scoped into EcIA?
		Pine marten is a Highland Nature BAP priority species.			
Wildcat	The HBRG desk study returned no records of wildcat. The Proposed Development Survey Area is not within a 'Wildcat Priority Area' as identified in the Scottish Wildcat Conservation Action Plan 2013 (Scottish Natural Heritage, 2013), although there are records of sightings in the Strathy and Melvich areas from a 2006-2008 survey published in the Action Plan. NatureScot research published in 2023 found no verified records of wildcats north of Lairg, with all records of wild-living cats in the far north of Scotland being of hybrid animals (Campbell et al, 2023). This species was not recorded during surveys for wind farms in the surrounding Connagill Cluster.	Areas of woodland and woodland edge habitat could provide suitable habitat for wildcat, but no field signs for this species have been recorded at other existing, consented and proposed wind farm development sites in the area. The occasional presence of wildcats or wildcat hybrids within the Proposed Development area cannot be ruled out. Wildcat is a European Protected Species (EPS) and Highland Nature BAP priority species.	Regional (if present) (Medium)	**Appendix 7.4**	Yes – on a precautionary basis.
Reptiles	The HBRG desk study returned two records of common lizard (*Zootoca vivipara*) at Rimsdale (NC 72 41 and NC 72 43), which is approximately 18 km south-west of the proposed Development. A common lizard was recorded during surveys for the Strathy Wood Wind Farm in 2021 at NC 803 527, approximately 4 km south-west of the proposed Development.	The Proposed Development is outside the UK range for sand lizard and smooth snake and therefore these species are concluded absent. Adder (*Vipera berus*) was recorded incidentally within the Proposed Development during ornithology surveys. This species is assumed present in suitable habitats within the Proposed Development boundary. Common lizard and adder is therefore assumed present in all suitable habitats within the Proposed Development boundary. These species are UK BAP Priority species but are likely to be widespread and relatively common given the abundance of suitable	Local (Low)	**Appendix 7.4**	Yes – potential for loss of and / or damage to habitats supporting reptiles; potential for fragmentation/ isolation of populations; potential for accidental killing / injury of reptiles.

Species	Desk Study Summary	Baseline Field Survey Summary	Nature Conservation Value	Technical Appendix	Scoped into EcIA?
		upland habitats both within and adjacent to the Proposed Development Survey Area.			

7.8 Future Baseline

7.8.1 In the absence of the Proposed Development, it is likely that any identified ecological receptors would largely remain unchanged. Areas of commercial forestry within the Study Area would continue to mature until a time when they would be subject to a future felling plan, which may create temporary localised changes.

7.8.2 Other changes over time may occur as a result of climatic change. These changes are likely to involve increased precipitation and risk of severe weather events as well as gradual increases in average temperatures. Some change in the vegetation assemblage is likely to occur as a result of these changes.

7.9 Embedded Mitigation / Mitigation by Design

7.9.1 In the context of this Chapter, embedded mitigation includes a range of environmental measures to avoid or reduce potential effects on nature conservation and biodiversity that have been incorporated into the Proposed Development from design stage through to operation.

Routeing and Consideration of Alternatives

7.9.2 The routeing and alignment selection process for the Proposed Development has taken into consideration the potential for significant effects on ecological features, and for such effects to be avoided or minimised where possible (see **Chapter 2** of this EIA Report). This has continued through the EIA process, with survey data informing the siting of infrastructure and access routes to further minimise effects on habitats and species where practicable, following the mitigation hierarchy as described in CIEEM guidance (CIEEM, 2018).

Pre-Construction and Construction

General Environmental Management

7.9.3 This assessment has been carried out on the basis that all works would be carried out in accordance with industry good practice construction measures, guidance and legislation. Furthermore, the Applicant has developed a series of GEMPs and SPPs in agreement with statutory consultees, including SEPA and NatureScot. These can be found in **Appendix 3.5: General Environmental Management Plans (GEMPs)** and **Appendix 3.6: Species Protection Plans (SPPs)**. SPPs have been prepared for bats, otter, badger and reptiles.

7.9.4 The appointed Principal Contractor would be committed to the implementation of a comprehensive and Site-specific CEMP. This document would detail how the Principal Contractor would manage the works in accordance with all commitments and mitigation detailed in the EIA, the Applicant's GEMPs and SPPs, statutory consents and authorisations, and industry good practice and guidance, including pollution prevention guidance. It would also detail measures to manage, control and monitor the potential effects of construction including noise, dust, waste, pollution and personnel / vehicular movements. Best practice pollution control measures, with reference to Guidance for Pollution Prevention (GPPs) and Control of Substances Hazardous to Health (COSHH) guidelines, would be included in the CEMP. Particular reference would be made to managing handling, storage and use of hazardous chemicals and fuels used during the construction process. A detailed spill response plan would be developed as part of the CEMP and fully-briefed to all site operatives. An Ecological Management Plan (EMP) would also be included as part of the CEMP, which would include relevant information on habitats and protected species local to the Proposed Development, requirements for pre-construction surveys and toolbox talks (TBTs), reference to relevant SPPs and information on licencing requirements and procedures. An Outline CEMP is provided in **Appendix 3.7.**

Pre-construction Surveys

7.9.5 Pre-construction surveys for protected species will be undertaken no more than 6 months in advance to identify any new ecological constraints and to ascertain the activity status of previously identified features within proximity of planned works.

Micrositing of Infrastructure

7.9.6 Any micrositing of infrastructure within the defined LoD's will be based on a review of existing ecological data and the completion of pre-construction surveys, to take into consideration the potential for direct encroachment onto protected species features, sensitive habitats or GWDTEs, or indirect alteration of hydrological flows supporting sensitive habitats of GWDTEs. Any micrositing will also take consideration of any buffer distances on protected features identified, as detailed within the SPPs (see **Appendix 3.5** and **Appendix 3.6** of this EIA Report).

Construction Access

7.9.7 Vehicle access would be required to each tower location for the creation of foundations and to facilitate tower installation. **Figure 3.1** shows the proposed indicative access arrangements, which comprise existing and a combination of new temporary and permanent access tracks.

7.9.8 Access for construction would largely utilise an existing access track which was upgraded for use during the construction of the operational Strathy North Wind Farm and more recently for the consented Strathy South and Strathy Wood Wind Farms. It is anticipated that no further upgrade works would be required to the existing track to enable access for the Proposed Development.

7.9.9 A new section of permanent access track would be constructed to extend the existing Strathy North Wind Farm access track through forestry to access towers positioned on the western side of the River Strathy (Towers 2, 3 and 4). No upgrade works would be required to the existing wind farm access track, but the new section of permanent access track would necessitate the removal of a strip of commercial forestry within Strathy Wood Forest. Felling would be undertaken in line with Scottish Government Policy and as set out in Scotland's Forestry Strategy 2019 – 2029 (Scottish Government, 2019).

7.9.10 New permanent and new temporary access routes would be required where no existing tracks can be used. These are shown on **Figure 3.1** and an access track schematic is included **in Appendix 3.2: Access Track Schematic**. Where the existing ground provides the appropriate bearing capacities, the new accesses would be constructed on-formation. Where the existing ground does not provide the appropriate bearing capacities and / or where peat is located, the new accesses would likely be floated on top of the soft ground, circumnavigating the requirement for deep excavations and disturbance to the peat. All new tracks would be constructed in accordance with best practice construction methods, and with reference to NatureScot's good practice guide on constructing tracks in Scottish uplands.

7.9.11 Other access by low ground pressure vehicles may be required between poles and towers. Such access would not require formal access tracks as access would either be via tracked vehicles or temporary trackway systems would be utilised in boggy / soft ground areas where required.

7.9.12 For steel lattice tower construction, it is anticipated that access would mainly be achieved through installation of new stone 'spur' tracks (permanent and temporary), to access each steel tower from the existing track. Floating stone road or trackway panel construction (typically a short-term solution) may be installed in sensitive areas such as over deeper areas of peat.

7.9.13 For wood pole construction, vehicle access is required to each pole location during construction to allow excavation and creation of foundations and pole installation. Preference would be given to lower impact access

solutions including the use of low pressure tracked personnel vehicles and trackway in boggy / soft ground areas to reduce any damage to, and compaction of, the ground. These journeys would be kept to a minimum to minimise disruption to habitats along the route.

Habitat Reinstatement and Restoration

7.9.14 Reinstatement would be undertaken during construction (and immediate post-construction phase) to address any areas of ground disturbance and changes to the landscape as part of the construction works, and minimise the impacts on habitats disturbed during construction.

7.9.15 An outline site restoration plan has been prepared to describe the principles and best practice guidance and measures that would be followed in the reinstatement and restoration of disturbed ground. This is included in **Appendix 3.4: Outline Site Restoration Plan**, and would be developed by the Applicant, the Principal Contractor and consenting authorities as required prior to construction commencing. In more sensitive areas, further site-specific measures would be implemented to ensure successful reinstatement, including site specific soil and peat management measures, and the employment of specialist advisers (i.e. ECoW). Such measures are set out in **Appendix 3.4** of this EIA Report.

7.9.16 A summary of the construction working areas that would be reinstated, and typically how this would be achieved is provided in the paragraphs below.

Reinstatement of Access Tracks

7.9.17 As shown in **Figure 3.1**, new permanent and new temporary tracks are required to facilitate construction and operation of the Proposed Development. Tracks to be retained would be partially reinstated on commissioning of the OHL to reduce their width to approximately 3.5 m (plus 1.5m for drainage and pollution prevention measures) for use by SSEN Transmission for maintenance access (this is also included below as operational mitigation). Other tracks noted as temporary would be removed and the land reinstated.

7.9.18 Reinstatement would involve replacement of subsoil, then topsoil, grading and installation of drainage as required with turves replaced vegetation side up. Where there are insufficient turves the ground would be allowed to vegetate naturally, although some seeding may be required to stabilise sites and prevent erosion, or where landowner requirements dictate otherwise. Methods for the reinstatement of peat would be set out in the Peat Management Plan (see **Appendix 9.2: Outline Peat Management Plan**).

Reinstatement of Work Areas (Towers and Poles)

7.9.19 Soil would be stored within the working area for each element of the work during construction. Subsoils and topsoil removed to enable the construction of the foundations and would be temporarily stockpiled in separate bunds within the working area or corridor, with stripped turves stored on top of the bunds.

7.9.20 Reinstatement would involve replacement of subsoil, then topsoil with turves replaced vegetation side up. Where there are insufficient turves the ground would be allowed to vegetate naturally, although some seeding may be required to stabilise sites and prevent erosion, or where landowner requirements dictate otherwise.

Reinstatement of Construction Compound(s)

7.9.21 At the end of construction all materials, buildings, and temporary compounds would be removed. Where required the land would be regraded with subsoil put down first, then topsoil with turves replaced vegetation side up. Where there are insufficient turves the ground would be allowed to vegetate naturally, although some seeding may be required to stabilise sites and prevent erosion.

Ecological Clerk of Works (ECoW)

7.9.22 To ensure all reasonable precautions are taken to avoid negative effects on habitats and protected species, a suitably qualified ECoW will be appointed prior to the commencement of construction to advise the Applicant and the Principal Contractor on all ecological matters. The ECoW will be required to be present onsite as appropriate during the construction phase and will carry out monitoring of works and briefings with regards to any ecological sensitivities to the relevant staff of the Principal Contractor and subcontractors.

Operational Measures

Access Tracks

7.9.23 To minimise longer term impacts on habitats (both direct and indirect), the sections of permanent access track width would be reduced from 6.5 m to 5 m for the operational period (this includes 1.5 m for drainage infrastructure), with all track-side habitat reinstated. This has been taken into account within the habitat loss calculations for the operational phase.

Maintenance

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

7.9.25 During the operation of the Proposed Development, it may be necessary to manage vegetation to maintain required safety clearance distances from infrastructure. However, this would be undertaken with advice from an ecologist and an ECoW employed for the duration of any works as necessary.

7.10 Assessment of Likely Significant Effects

7.10.1 This section considers the potential impacts and associated effect significance of the construction and operation of the Proposed Development based on the typical activities described in **Chapter 3** of this EIA Report. The assessment takes into account the embedded mitigation measures described in Section 7.9 above. A summary of the IEFs taken forward for ecological impact assessment is provided in **Table 7.5**.

Table 7.5: Summary of IEFs Scoped into the Ecological Impact Assessment

IEF	Nature Conservation Value	Justification
Caithness and Sutherland Peatlands SAC / Ramsar Qualifying Annex I habitats: Blanket Bog Northern Atlantic wet heaths with *Erica tetralix*	International (Very High)	Potential for direct and indirect habitat loss, change and / or damage during construction. Potential for localised habitat disturbance/ damage during small-scale maintenance operations during operation.
Flow Country WHS Assemblage of peatland and bog habitats.	International (Very High)	Potential for direct and indirect habitat loss, change and / or damage during construction. Potential for localised habitat disturbance/ damage during small-scale maintenance operations during operation.
West Halladale SSSI Non-avian notified features: Blanket bog	National (High)	Potential for direct and indirect habitat loss and/ or damage during construction.

IEF	Nature Conservation Value	Justification
		Potential for localised habitat disturbance/ damage during small-scale maintenance operations during operation.
Non-designated peatland and upland assemblage habitats: Acid grassland (U20/ U20b) Bog (M15b, M15c, M17, M17a, M17b, M20, M25, M25a, M5b) Dwarf shrub heath (H10)	Regional (Medium)	Potential for direct and indirect habitat loss, change and/ or damage during construction. Potential for localised habitat disturbance/ damage during small-scale maintenance operations during operation.
Bats (roosting)	Local (Low)	Potential noise / visual disturbance to small common pipistrelle roosts at Dallangwell Cottage, and Stock Shed during construction and operation.
Otter	International (Very High)	Potential for loss of / damage to otter habitats during construction. Potential for disturbance to otter during construction and operation.
Reptiles	Local (Low)	Potential for loss of and / or damage to habitats supporting adder and common lizard during construction. Potential for fragmentation/ isolation of populations during construction. Potential for accidental killing or injury during construction. Potential for localised disturbance/ displacement during operation.
Pine marten	Regional (Medium)	Potential for loss of and / or damage to habitats supporting pine marten during construction. Potential for fragmentation/ isolation of populations during construction. Potential for localised disturbance/ displacement during operation.
Wildcat	Regional (if present) (Medium)	Potential for loss of and / or damage to habitats supporting wildcat during construction. Potential for fragmentation/ isolation of populations during construction. Potential for localised disturbance/ displacement during operation.

7.10.2 The potential effects on ecological receptors which may arise from the Proposed Development relate principally to the construction phase, which includes the construction of the CSE compound and OHL towers and poles, with their corresponding working areas. Site access for construction for most of the OHL towers and poles would mostly utilise the existing access track which is currently being upgraded to enable construction of the consented Strathy South and Strathy Wood wind farms. Short 'spurs' of permanent and temporary track (floating stone road or tracking panels in more sensitive areas e.g. deeper areas of peat) would be constructed where possible to provide access to the tower / pole construction areas. However, the assessment has assumed the worst-case scenario that cut methods would be used for all track construction. The access track to the Strathy North substation and Strathy North Wind Farm would be used to provide access to tower

construction areas on the west side of the River Strathy (Towers 2, 3 and 4), with a new stretch of permanent access created off the existing access track. For the construction of this new stretch of permanent access track plus the safe operation of the proposed OHL (between Towers 2, 3 and 4) a small amount of woodland loss would be required within Strathy Wood Forest (see **Chapter 12** of this EIA Report).

7.10.3 Towers 1, 5 and 19 are in close proximity to the River Strathy; however, their locations have been designed to be offset from the watercourse by a minimum of 20 m, with no construction activities undertaken within 10 m of the watercourse, although the OHL conductors would be strung across the River Strathy between Towers 1 and 2, and Towers 4 and 5.

7.10.4 Potential impacts are generally limited to the construction phase and are anticipated to be largely temporary, low magnitude and localised.

7.10.5 Operational effects would occur as a result of the permanent presence of the OHL towers and poles and the CSE compound (for which permanent direct habitat losses and permanent indirect habitat losses have been calculated as part of the construction phase impact assessment), and the presence of new permanent access track sections (for which a separate calculation has been undertaken due to the reduction in overall width when compared to the temporary construction phase access track, and the permanent indirect habitat losses that will occur within a 10 m buffer (for hydrologically dependent habitats, to account for potential alterations to habitats through changes to local hydrology).

7.10.6 The predicted temporary and permanent land take for each element of the Proposed Development is summarised in **Table 7.6**. Detailed calculations of habitat losses, based on the assumptions below, are provided in **Table 7.7**.

Table 7.6: Predicted Temporary and Permanent Land Take

Proposed Development Element	Quantum	Construction (Temporary Land Take)	Operation (Permanent Land Take)
Access track (temporary)	2.75 km	1.37 ha[11]	None – all temporary land take would be reinstated post-construction
Access track (permanent)	2.46 km	1.60 ha[12]	1.23 ha[13]
Temporary construction working area at towers and poles	15 steel lattice suspension towers 3 steel lattice angle/ tension towers 1 steel lattice terminal tower 2 'H' wood poles	5.55 ha[14]	None – all temporary land take would be reinstated post-construction
Cable Sealing End (CSE) Compound (plus earthworks)	1	0.15 ha	0.15 ha

[11] 5 m temporary track width x 2730 m length = 13,750 m^2

[12] 6.5 m temporary track width x 2460 m length = 15,990 m^2

[13] 5 m permanent track width (reduced from 6.5 m needed during construction) x 2460 m length = 12,300 m^2

[14] Steel lattice angle/tension tower: 70 m^2 x 3 towers = 14,700 m^2; steel lattice suspension tower: 50m^2 x 15 towers = 37,500m^2; + 1 steel lattice terminal tower: 50m^2 x 1 tower = 2,500 m^2; 'H' wood pole: 20m^2 x 2 = 800m^2. Total for all towers/poles = 55,500 m^2

Proposed Development Element	Quantum	Construction (Temporary Land Take)	Operation (Permanent Land Take)
Permanent land take for 132 kV steel lattice towers (excluding terminal tower which is within CSE compound)	18	0.014 ha[15] (relates just to tower feet)	0.014 ha (relates just to tower feet)
Permanent land take for 'H' wood poles	2	0.003 ha[16] (relates just to pole feet)	0.003 ha (relates just to pole feet)

7.10.7 In addition to the assessment presented in the below sections, the following standalone technical assessments have been undertaken:

- Shadow Habitats Regulations Assessment (SHRA) of the potential construction and operational impacts on the Caithness and Sutherland Peatlands SAC / Ramsar (**Appendix 7.6**).
- Flow Country WHS assessment using the Flow Country Candidate World Heritage Site Impact Assessment Toolkit[17] for potential impacts on Outstanding Universal Value (OUV) attributes of the WHS and its integrity (**Appendix 7.7**).

Construction Effects

7.10.8 The majority of the impacts of the Proposed Development would be temporary, with ground disturbance required for construction access and the working areas for the OHL towers and poles. Potential effects of the Proposed Development on IEFs are considered to comprise:

- Temporary or permanent direct or indirect loss of Annex I habitats, including qualifying habitat features of the Caithness and Sutherland Peatlands SAC / Ramsar site and notified features of the West Halladale SSSI, Flow Country WHS and/or other sensitive (non-designated) habitats such as groundwater-dependent terrestrial ecosystems (GWDTEs);
- Temporary or permanent direct or indirect damage, change and/or fragmentation of Annex I habitats that are qualifying habitat features of the Caithness and Sutherland Peatlands SAC / Ramsar;
- Temporary or permanent direct or indirect damage, change and/ or fragmentation of notified habitat features of West Halladale SSSI;
- Temporary or permanent direct or indirect damage, change and/ or fragmentation of habitat attributes of the Flow Country WHS;
- Temporary or permanent direct or indirect damage, change and/ or fragmentation of other sensitive (non-designated) habitats such as GWDTEs;
- Loss of and / or damage to habitats supporting otter, and disturbance to otter (a qualifying feature of the Caithness and Sutherland Peatlands SAC);
- Noise and / or visual disturbance and/or displacement of roosting common pipistrelle.
- Loss of and / or damage to habitats supporting common lizard and adder; and accidental killing or injury common lizard and adder;

[15] 1.96 m^2 (per tower foot) x 4 tower feet = 7.84 m^2 per tower x 18 towers = 141.12 m^2

[16] 7.5 m^2 (per H pole leg) x 2 (2 legs per H pole) = 15 m^2 per H pole x 2 no. H poles = 30 m^2

[17] It is noted that the Flow Country WHS has been formally inscribed as a WHS since the toolkit was published, and therefore is no longer a 'candidate' WHS. However, the toolkit has yet to be updated and therefore the 'candidate' WHS toolkit remains applicable until such time an updated version is published by The Highland Council.

- Loss of and / or damage to habitats supporting pine marten; and
- Loss of and / or damage to habitats supporting wild cat.

Caithness and Sutherland Peatlands SAC/ Ramsar

Loss of and / or Damage to Designated Habitats

7.10.9 A total of 13 of the 19 lattice towers (and neither of the trident 'H' poles) would be constructed within the boundary of the Caithness and Sutherland Peatlands SAC / Ramsar. Permanent loss of habitat would be restricted to the footprint of each tower / pole and a small section of permanent access track to Towers 5 and 17. The CSE compound is not within the boundary of the designated site.

7.10.10 Habitat loss calculations within the designated site have been completed for the Proposed Development (see **Table 7.7**). The parameters for the calculations are based on the physical land take required (as set out in **Table 7.6** and **Chapter 3** of this EIA Report), and an understanding of the effects of temporary and permanent disturbance to peatland habitats gained during previous work for the nearby consented and operational wind farms and grid connections:

- Direct Habitat Loss (direct effect, permanent, irreversible) – the permanent footprint of any component of the infrastructure that would not be restored following construction. This is limited to the small footprint of the tower legs and 'H' pole legs, and the new short spurs of permanent access track off the existing access track;
- Temporary Habitat Loss (direct effect, temporary, reversible) – any infrastructure component that would be restored following construction, which includes temporary access tracks and temporary construction working areas at the towers. This area also includes a 4 m buffer surrounding infrastructure to allow machinery to work outwith the permanent footprint of any infrastructure component. Such areas would all be restored following construction as detailed in **Appendix 3.4** for the Proposed Development; and
- Permanent Habitat Change (indirect effect, permanent, irreversible) – a 10 m buffer has been applied to the permanent footprint for each component of the Proposed Development where hydrologically dependent habitats (referred to as '(GWDTE in **Chapter 9** of this EIA Report) are present to account for the potential alterations to habitats through changes to hydrological flows to these.

7.10.11 **Table 7.7** details the quantities of permanent and temporary habitat losses within the boundary of the SAC / Ramsar/ SSSI of the Proposed Development.

Table 7.7: Construction Habitat Loss and Damage Calculations within Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI (By Habitat Type)

Habitat	Corresponding NVC Habitat Type	Areas (ha)			
		Direct Permanent Loss	Indirect Permanent Loss due to Habitat Change	Temporary Loss	Total (by habitat type)
Qualifying Annex I Habitats					
Blanket Bog (Bog)	M15b, M15c, M17, M17a, M17b, M20, M25, M25a, M25b	0.41	1.02	1.06	2.49
North Atlantic wet	H10	0.012	0.02	0.01	0.042

Habitat	Corresponding NVC Habitat Type	Areas (ha)			
		Direct Permanent Loss	Indirect Permanent Loss due to Habitat Change	Temporary Loss	Total (by habitat type)
heath with *Erica tetralix* (Dwarf shrub heath)					
Non-qualifying Habitats					
Acid grassland	U20	0.000098	0.02	0.008	0.03
Fen, marsh and swamp	M6, M6c	0	0.0051	0	0.0051
Total (all habitats)		**0.42**	**1.07**	**1.08**	**2.57**

7.10.12 The Proposed Development identifies a total overall effect to habitats of 2.57 ha within the Caithness and Sutherland Peatlands SAC boundary resulting from the Construction Phase, which is approximately 0.002 % of the total SAC designated area of 145,960.53 ha. This includes 0.42 ha of direct permanent habitat loss, 1.08 ha of temporary habitat loss and 1.07 ha of indirect permanent habitat loss due to habitat change. The proportion of habitat loss within the Ramsar is also 0.002% when rounded to three decimal places, although the Ramsar site area is slightly smaller than that of the SAC at 143,503 ha.

7.10.13 The majority of the habitat impacted by the Proposed Development within the SAC boundary is blanket bog, with some minor losses of dwarf shrub heath, upland acid grassland and fen, marsh and swamp habitats. Blanket bog and dwarf shrub heath are Annex I habitats that are qualifying features of the SAC and are therefore internationally important, although they are common and widespread in the regional context. The Annex I bog habitats are also GWDTEs. The magnitude of impact is assessed as Low, as the direct habitat losses are very small in context with the whole SAC designation, which covers hundreds of thousands of hectares of peatland. The permanent unmitigated losses would not reasonably substantially affect the distribution or extent of Annex I habitats within the designated sites. The unmitigated effect of temporary and permanent habitat losses within the Caithness and Sutherland Peatlands SAC / Ramsar is therefore assessed as **Minor adverse (Not significant)**.

7.10.14 A Shadow HRA has also been undertaken and is presented in **Appendix 7.6**.

Loss of and / or Damage to Habitats Supporting Otter

7.10.15 The River Strathy is crossed twice by the Proposed Development; between Towers 1 and 2, and between Towers 4 and 5. However, the Proposed Development would not result in any direct or indirect impacts to habitats supporting otter e.g. River Strathy and its tributaries, and associated riparian habitats. As part of the Proposed Development design the OHL towers are offset from the River Strathy by a minimum of 20 m. No construction activities would be undertaken within a 10 m buffer from watercourses. Standard embedded mitigation measures to control surface water run-off during construction would be implemented as required for environmental legislative compliance and would be set out in the CEMP. The magnitude of impact to otter

riparian habitats are therefore predicted to be negligible, and the resulting effects of the Proposed Development on otter habitats are **Negligible (Not significant)**.

Disturbance to Otter

7.10.16 No holts or natal holts were identified within the Survey Area, and therefore there is no potential for disturbance to breeding otter. The couches identified on the River Strathy are approximately 50 m from the nearest construction works (associated with Towers 3, 4, 8 and 9). The implementation of a 10 m buffer alongside watercourses as part of the embedded mitigation for the construction phase of the Proposed Development would minimise the potential for any noise or visual disturbance to riparian and aquatic habitats that may be used by otter for foraging / on passage, or to any new couches that are established in the intervening period prior to the commencement of construction activities. No nighttime working would be undertaken, and therefore there is negligible potential for noise or visual disturbance to foraging / commuting otter. The magnitude of impact is assessed as negligible, and the resulting effect is **Negligible (Not significant)**.

West Halladale SSSI

Loss of and / or Damage to Notified Habitats

7.10.17 The assessment presented in respect of the Caithness and Sutherland Peatlands SAC / Ramsar is also applicable to the assessment of potential impacts on the West Halladale SSSI non-avian notified habitat feature (blanket bog) because the SSSI is entirely within the boundary of the SAC / Ramsar. The proportion of SSSI habitat impacted by the Proposed Development is approximately 0.03% of the total designated area of 8,658.85 ha. The unmitigated effect of temporary and permanent habitat losses within the West Halladale SSSI is therefore assessed as **Minor adverse (Not significant)**.

Flow Country WHS

Loss of and / or Damage to Attributes

7.10.18 The assessment presented in respect of the Caithness and Sutherland Peatlands SAC / Ramsar is also applicable to the assessment of potential impacts on the habitat assemblage that is an attribute of the Flow Country WHS, because the boundary overlaps with the majority of the SAC / Ramsar. The proportion of WHS habitat impacted by the Proposed Development is 8.19 ha (this includes habitat both within and outwith the SAC / Ramsar, because the WHS boundary is larger), which is approximately 0.004% of the total designated area of approximately 200,000 ha. The unmitigated effect of temporary and permanent habitat losses within the Flow Country WHS is therefore assessed as **Minor adverse (Not significant)**.

7.10.19 A separate WHS assessment has also been undertaken and is presented in **Appendix 7.7.**

Habitats (Non-designated)

Loss of and / or Damage to Habitats

7.10.20 A total of 6 of the 19 lattice towers, both of the 'H' poles, the CSE compound and sections of permanent access track would be constructed within the peatland habitat outwith the boundary of the Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI. As set out above in respect of the habitats within the SAC / Ramsar / SSSI, permanent losses of non-designated habitat would be restricted to the footprint of each tower / pole and the CSE compound and some short sections of permanent access track. Habitat loss calculations have been completed for the Proposed Development (see **Table 7.8**). The parameters for the calculations are based on the physical land take required (as set out in **Table 7.5** and **Chapter 3** of this EIA Report), and an understanding of the effects of temporary and permanent disturbance to peatland habitats gained during previous work for the nearby consented and operational wind farms and grid connections, and are as set out

above in the assessment of effects on the Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI.

7.10.21 **Table 7.8** details the quantities of permanent and temporary non-designated habitat losses and the associated NVC communities within the Proposed Development boundary.

Table 7.8: Construction Habitat Loss and Damage Calculations for Non-designated Habitats (by Habitat Type)

Habitat	Corresponding NVC Habitat Type	Areas (ha)			
		Direct Permanent Loss	Indirect Permanent Loss due to Habitat Change	Temporary Loss	Total (by habitat type)
Annex I Habitats					
Blanket Bog (Bog)	M15, M15b, M15c, M17, M17a, M17b, M20, M25, M25b, M25a	1.1	1.02	2.75	4.87
North Atlantic wet heath with *Erica tetralix* (Dwarf shrub heath)	H10	0.0001	0.02	0.02	0.04
Other Habitats					
Acid grassland	U20	0.01	0.02	0.02	0.05
Other coniferous woodland	N/A	0.65	0	0	0.65
Purple moor-grass and rush pasture	M23b	0.006	0	0	0.006
Total (all habitats)		**1.77**	**1.06**	**2.79**	**5.62**

7.10.22 The Proposed Development identifies a total overall effect to non-designated upland habitats of 5.62 ha resulting from the Construction Phase, approximately half of which is temporary and reversible. The remaining permanent habitat losses have been calculated from a combination of the direct footprint associated with the Proposed Development (including permanent access tracks) as well as assumed permanent indirect habitat loss due to habitat changes effected by impacts on local hydrology within the zone of influence of the permanent infrastructure.

7.10.23 The Annex I habitats affected are blanket bog and dwarf shrub heath, which all have European legislation pertaining to them but are common and widespread in a regional context; consequently, their conservation value is assessed as Regional. The other habitats affected are not particularly rare or notable but contribute to the overall Regional level importance of the peatland habitat mosaic within the area that falls outwith the SAC / Ramsar, WHS and SSSI designations. The magnitude of impact is assessed as low as it would result in very small permanent habitat losses in the context of the wider area. As such, the unmitigated effects to non-designated peatland habitats resulting from the construction of the Proposed Development are assessed as **Minor adverse (Not significant)**.

Bats

Noise / Visual Disturbance to Roosts

7.10.24 The identified bat roosts at Dallangwell Cottage and Stock Shed are >100 m from the nearest construction activities, which are associated with Towers 16, 17 and 18. It is therefore concluded that at this distance, there is no potential for noise disturbance to roosting bats in the buildings during the construction phase. No night-time working is proposed and therefore there is no potential for visual disturbance to bats through the illumination of foraging and commuting pathways away from or to the roosts. The magnitude of impact is therefore assessed as negligible to roosting bats and the resulting effect is **Negligible (Not significant)**.

Reptiles

Loss of and / or Damage to Habitats and Fragmentation / Isolation of Populations

7.10.25 The small losses of habitat (both temporary and permanent) are unlikely to significantly affect any local populations of common lizard and adder that may be present in habitats directly impacted by the Proposed Development. This is on the basis that there are very extensive areas of similar, connected, habitat in the wider local area that would be unaffected into which displaced reptiles can disperse. There is no potential for fragmentation or isolation of any reptile populations, because the majority of impacts of habitats are temporary and reversible, and permanent habitat losses are limited to small discrete areas. The magnitude of impact on reptiles is therefore assessed as low, and the resulting effect is **Minor adverse (Not significant)**.

Accidental Killing / Injury

7.10.26 The potential for accidental killing / injury of reptiles during site preparation works and vegetation clearance for the construction phase would be addressed through embedded mitigation for a precautionary working method statement for reptiles, that would form part of the CEMP. Any accidental killing/ injury would therefore be very unlikely; however, in the absence of mitigation would be unlikely to affect anything other than a small number of individuals that would not threaten the population size or distribution in the wider local areas. The magnitude of impact on the local reptile population is therefore assessed as negligible, and the resulting effect is **Negligible (Not significant)**.

Pine Marten

Loss of and / or Damage to Habitats and Fragmentation / Isolation of Populations

7.10.27 The small losses of woodland habitat required for the construction of a new stretch of permanent access track (to access Towers 2, 3 and 4), plus the safe operation of the proposed OHL between these towers are unlikely to significantly affect any local populations of pine marten that may be present in habitats directly impacted by the Proposed Development. This is on the basis that there are very extensive areas of similar, connected, forestry habitat in the wider local area that would be unaffected into which displaced animals can disperse. There is no potential for fragmentation or isolation of any pine marten populations because the permanent habitat losses are limited. The magnitude of impact on pine marten is therefore assessed as negligible, and the resulting effect is **Negligible (Not significant)**.

Wildcat

Loss of and / or Damage to Habitats and Fragmentation / Isolation of Populations

7.10.28 The small losses of woodland habitat required for the construction of a new stretch of permanent access track (to access Towers 2, 3 and 4), plus the safe operation of the proposed OHL between these towers are unlikely to significantly affect any local populations of wildcat, if this species is present in Strathy Forest (noting that the presence of this species is considered unlikely based on the available evidence). This is on the basis that there

are very extensive areas of similar, connected, forestry habitat in the wider local area that would be unaffected into which displaced animals can disperse. There is no potential for fragmentation or isolation of any wildcat populations, if present, because the permanent habitat losses are limited. The magnitude of impact on wildcat is therefore assessed as negligible, on a precautionary basis assuming that the species could be present, and the resulting effect is **Negligible (Not significant)**.

Operational Effects

Habitats

7.10.29 Potential impacts on habitats both within and outwith the Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI and Flow Country WHS from the Proposed Development during its Operational Phase are considered to be limited, resulting from small-scale maintenance operations. This may result in some localised habitat disturbance around the base of the towers / poles, but access to these areas would utilise temporary trackway matting (or similar measures appropriate to the site conditions), to minimise the risk of any irreversible damage to habitats. The operational footprint of the new permanent access track sections is reduced in width upon completion of construction, so the habitat losses resulting from the operation of the permanent access tracks is reduced when compared to the construction phase. There are permanent indirect impacts resulting from the hydrological changes within the 10 m buffer zone, but as set out in **Table 7.6**, the losses are minor in the context of the wider peatland habitat within the SAC / Ramsar and SSSI and WHS. The magnitude of impact is assessed as low, and the resulting unmitigated effect is **Minor adverse (Not significant)**.

Protected Species

7.10.30 Effects to protected species from the Operational Phase of the Proposed Development are also considered to be very limited. There may be some temporary impacts for operational maintenance around the bases of the towers / poles, and these could potentially disturb habitats supporting common lizard and adder. However, any disturbance to habitats and potential displacement of reptiles from these habitats would be very limited in both extent and duration. Any potential noise or visual disturbance impacts would not reasonably result in any substantial displacement or disturbance to protected species including bats roosting at Dallangwell Cottage and Stock Shed (which are >100 m from the nearest towers), pine marten or wildcat. The magnitude of impact on protected species is assessed as low, and the resulting unmitigated effect is **Negligible (Not significant)**.

7.10.31 There is no potential for operational impacts to otter habitats, as there are no towers or poles within 20 m of the River Strathy. Any periodic maintenance operations would be undertaken in daylight hours only and would occur at the tower locations which are >20 m from the River Strathy. It is therefore concluded that there would be no risk of disturbance to otters foraging and commuting along the river, or any damage / disturbance to habitats or places of rest / shelter that may be present. The magnitude of impact on otter is assessed as negligible, and the resulting unmitigated effect is **Negligible (Not significant)**.

7.11 Mitigation

7.11.1 General and embedded mitigation and mitigation by design measures for habitats and species, such as complying with best practice, micrositing provisions, presence of an ECoW and adherence to a detailed CEMP and SPP are included in Section 7.9. Whilst the EcIA has not identified any significant effects on IEF have been identified, specific mitigation at a landscape level will be delivered for habitat losses within the boundary of the Caithness and Sutherland Peatlands SAC/ Ramsar, West Halladale SSSI and Flow Country WHS designations.

Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI / Flow Country WHS

7.11.2 A landscape scale HMP, combining the HMPs of the Connagill Cluster Grid Connection projects, is being developed in consultation with NatureScot to address the cumulative habitat losses of peatland resulting from

the construction of the grid connections in line with the existing HMPs for the associated renewable energy developments, including within the boundaries of the Flow Country WHS and Caithness and Sutherland Peatlands SAC / Ramsar (see **Appendix 7.8**).

Other Protected Species

7.11.3 All other protected species mitigation has been included as embedded mitigation and relevant SPPs prepared for inclusion within the CEMP. This embedded mitigation has been taken into account when completing the ecological impact assessment and has resulted in a conclusion of no significant effects for any protected species. No additional mitigation is therefore necessary.

7.12 Cumulative Effects

7.12.1 The purpose of the assessment of cumulative effects is to identify situations where effects on IEFs that may be non-significant from individual developments, are judged to be significant when combined with nearby existing or proposed projects. In the interests of focusing on the potential for similar significant effects, this assessment considers the potential for cumulative effects with other similar infrastructure developments in the Strathy area, including those that are under construction, consented or at application stage (operational developments are considered part of the baseline). Developments at pre-application or scoping stage generally do not have sufficient information on potential effects to be subject to detailed cumulative effects assessment, as the baseline survey period is ongoing, and/ or the results and impact assessments have not been published. However, an assessment of likely/ potential cumulative effects with the Proposed Development has been undertaken where possible, informed by any relevant information available in the public domain with professional judgement applied. Developments that have been refused or withdrawn have been scoped out.

7.12.2 Four proposed or consented wind farms and associated infrastructure (grid connections and substations) are present within a 20 km radius of the Proposed Development, the grid connections for which are collectively referred to as the 'Connagill Cluster Grid Connections[18]'. In addition, two scenarios are considered in respect of the proposed Strathy South Wind Farm 'Northern Section' Grid Connection; one assuming the Melvich Wind Energy Hub is granted consent and one assuming it is not granted consent, to allow flexibility on the connection route.

7.12.3 No other proposed or consented (but not yet constructed) developments that could potentially interact with the construction and / or operational phases of the Proposed Development, and result in cumulative effects to the same qualifying habitats and species of the Caithness and Sutherland Peatlands SAC / Ramsar, have been identified.

Table 7.9: Developments Scoped into Cumulative Effects Assessment

Development Name	Status	Total permanent land-take for development (ha)	No. of turbines / length of OHL or UGC
Kirkton Energy Park (including Kirkton Substation)	Application submitted	15.29	11 turbines
Kirkton Energy Park Grid Connection	Pre-application	Not yet confirmed	Approximately 0.18 km of OHL supported by trident wood pole

[18] The proposed Armadale Wind Farm was originally included within the Connagill Cluster Grid Connections project. However, in May 2024 the developer of the proposed Armadale Wind Farm withdrew the section 36 application and consequently no longer require a grid connection. As such, this project has been removed from the Connagill Cluster Grid Connections.

Development Name	Status	Total permanent land-take for development (ha)	No. of turbines / length of OHL or UGC
Melvich Wind Energy Hub (including Melvich Substation)	Application submitted	10.65 (plus 18.94 ha of indirect habitat loss); values include temporary habitat loss	12 turbines
Melvich Wind Energy Hub Grid Connection	Pre-application	Not yet confirmed	Approximately 0.48 km of 132 kV underground cable (UGC)
Strathy Wood Wind Farm (including Strathy Wood Substation)	Consented	13.00	11 turbines
Strathy South Wind Farm (including Strathy South Substation)	Consented	28.38 (plus 24.19 ha of permanent habitat change)	35 turbines
Strathy South Wind Farm 'Southern Section' Grid Connection	Anticipated to be Permitted Development	-	Approximately 5.4 km of 132 kV UGC
Strathy South Wind Farm 'Northern Section' Grid Connection – Alternative Alignment	Pre-application	Not yet confirmed	Approximately 12.5 km of OHL supported by steel lattice tower
Strathy South Wind Farm 'Northern Section' Grid Connection – Proposed Alignment	Pre-application	Not yet confirmed	Approximately 10.5 km of OHL supported by steel lattice tower
Strathy Switching Station	Pre-application	Not yet confirmed	N/A

7.12.4 Given the proximity of the numerous wind farm and their associated grid connections there is the potential for cumulative effects on the Caithness and Sutherland Peatlands SAC / Ramsar and its component SSSIs, the Flow Country WHS and other non-designated peatland habitats, and protected species as a result of the construction and operation of the projects listed in **Table 7.9** with the Proposed Development.

7.12.5 The potential for cumulative effects on IEFs scoped into this assessment for each of the projects listed in **Table 7.9** with the Proposed Development has been assessed (see **Table 7.10**). Although habitat loss associated with the Proposed Development alone is very minor, and the effects on both designated and non-designated habitats are assessed as not significant, it is acknowledged that cumulative impacts with other nearby projects may result in a greater magnitude of impact on the habitats in the wider context. Each of the projects alone has / will have its own HMP to mitigate for peatland habitat losses, which for all of the other projects in the majority occur outside the boundary of the Caithness and Sutherland Peatlands SAC / Ramsar. In addition, an Outline

HMP, combining the HMPs of the 'Connagill Cluster Grid Connection' projects, is being developed in consultation with NatureScot to mitigate the cumulative losses of habitat resulting from the construction of the grid connections (see Section 7.11 and **Appendix 7.8**). With this mitigation in place, it is reasonable to conclude that there would be no significant cumulative effects on the designated and non-designated peatland habitats.

7.12.6 Cumulative effects on the Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI for the Proposed Development with each project listed in **Table 7.9**, as well as the Proposed Development with all of the other projects combined, are therefore assessed as **Minor adverse (Not significant)**. A Shadow HRA has also been undertaken and concluded that there would be no adverse effects on the integrity of the SAC / Ramsar either alone or in-combination with other plans or projects (see **Appendix 7.6**).

7.12.7 There is no potential for significant cumulative effects on otter, a qualifying feature of the Caithness and Sutherland Peatlands SAC. The other project assessments for which information was available concluded that there would be no significant effects on otter; given the spatial separation of the projects it is reasonable to conclude that any localised disturbance to otter within the zone of influence of a particular project that falls below the threshold of a significant effect in isolation, would not reasonably combine with any other projects within the Connagill Cluster of wind farms and associated grid connections to give rise to a significant noise / visual disturbance to otter when combined with the Proposed Development. Cumulative effects on otter are therefore assessed as **Negligible (not significant)**.

7.12.8 The mitigation measures to be implemented for the impacts of the Connagill Cluster Grid Connections and wind farms on the Caithness and Sutherland Peatlands SAC / Ramsar and West Halladale SSSI will be similarly applicable to mitigate for any potential cumulative impacts on the Flow Country WHS. Cumulative effects on the WHS for the Proposed Development with each project listed in **Table 7.9**, as well as the Proposed Development with all of the other projects combined, are therefore assessed as **Minor adverse (Not significant)**. A separate WHS assessment has been undertaken and concluded that there would be no significant adverse in-combination effects on the attributes of the WHS (see **Appendix 7.7**).

7.12.9 A summary of the cumulative effects assessment on the individual projects within the Connagill Cluster is provided in **Table 7.10**.

Table 7.10: Summary of Potential Cumulative Effects

Development Name	Potential Cumulative Effects with the Proposed Development		
	Caithness and Sutherland Peatlands SAC/ Ramsar and West Halladale SSSI	Flow Country WHS	Protected Species
Kirkton Energy Park (including Kirkton Substation)	There will be no direct habitat loss within the Caithness and Sutherland SAC / Ramsar, and therefore is no potential for cumulative effects with the Proposed Development. There will be no direct habitat loss within the West Halladale SSSI, and therefore is no potential for cumulative effects with the Proposed Development.	All turbines are within the WHS boundary, with a total permanent land take of 15.29 ha. When combined with the permanent habitat losses resulting from the Proposed Development (2.83 ha), the cumulative total habitat loss would be 18.12 ha, which represents approximately 0.01% of the total WHS area and is negligible when considered in the context of the wider site. Cumulative effects on the WHS are therefore assessed as **Negligible (not significant)**.	Pine marten, wildcat and badger were considered absent from affected habitats. The assessment concluded there would be no significant effects on otter and common pipistrelle bat, and therefore there is no potential for cumulative effects on these species with the Proposed Development.
Melvich Wind Energy Hub (including Melvich Substation)	There will be no direct or indirect habitat loss or damage within the Caithness and Sutherland SAC / Ramsar, and therefore is no potential for cumulative effects with the Proposed Development. Potential indirect effects on nearby designated habitats due to the hydrological connectivity were ruled out due to the SAC habitats being outside the Zone of Influence. There will be no direct habitat loss within the West Halladale SSSI, and therefore is no potential for cumulative effects with the Proposed Development.	All turbines are within the WHS boundary, with a total permanent land take of 10.65 ha, plus 18.94 ha of indirect habitat loss. When combined with the permanent habitat losses resulting from the Proposed Development (2.83 ha), the cumulative total habitat loss would be 32.43 ha, which represents approximately 0.02% of the total WHS area and is negligible when considered in the context of the wider site. Cumulative effects on the WHS are therefore assessed as **Negligible (not significant)**.	The assessment concluded that there would be no significant effects on otter because all development would be >50m from any watercourse, so there is therefore no potential for cumulative effects with the Proposed Development.
Kirkton Energy Park (including Kirkton Substation)	There is no potential for cumulative effects arising from all three projects because as set out above, both the Kirkton Energy Park and Melvich Wind Energy Hubs are outside the boundary of the designated sites.	Given that there is potential for a greater magnitude of cumulative effects on the WHS when these three projects are combined, the cumulative impact of all three projects has been assessed.	There is no potential for significant cumulative effects arising from all three projects to any protected species.

Development Name	Potential Cumulative Effects with the Proposed Development		
	Caithness and Sutherland Peatlands SAC/ Ramsar and West Halladale SSSI	Flow Country WHS	Protected Species
and Melvich Wind Energy Hub (including Melvich Substation)		When combined with the permanent habitat losses resulting from the Proposed Development (2.83 ha), the cumulative total habitat loss for all three projects would be 47.71 ha, which represents approximately 0.02% of the total WHS area. Such minor losses in the context of the hundreds of thousands of hectares of peatland within the WHS would reasonably continue to be below the threshold at which a significant impact would occur. Cumulative effects on the WHS arising from the construction and operation of the Kirkton Energy Park and the Melvich Wind Energy Hub with the Proposed Development, should all three be consented, are considered to be **Negligible (not significant)**.	
Kirkton Energy Park Grid Connection	There is no potential for cumulative effects arising from this grid connection. The route of the grid connection falls outwith the designated sites of the surrounding area and the development is unlikely to affect qualifying interests of these sites.	**Appendix 7.8, Table 4** assesses the potential effects to habitats from the construction and operation of the Kirton Energy Park Grid Connection as the design of this development is not complete. The assessment predicts that 0.327 ha of habitats may be affected by the grid connection. The proposed HMP seeks to compensate for the effects along with providing suitable enhancement. Consequently, it is considered that there would be no cumulative effects from the Kirton Energy Park Grid Connection in combination with the Proposed Development or others lists in this table.	The scheme may affect protected species, but as the Proposed Development will not significantly affect any protected species, the potential for cumulative effects is low.

Development Name	Potential Cumulative Effects with the Proposed Development		
	Caithness and Sutherland Peatlands SAC/ Ramsar and West Halladale SSSI	Flow Country WHS	Protected Species
Melvich Wind Energy Hub Grid Connection	There is no potential for cumulative effects arising from this grid connection. The route of the grid connection falls outwith the designated sites of the surrounding area and the development is unlikely to affect qualifying interests of these sites.	**Appendix 7.8, Table 4** assesses the potential effects to habitats from the construction and operation of the Melvich Wind Energy Hub Grid Connection as the design of this development is not complete. The assessment predicts that 0.900 ha of habitats may be affected by the grid connection. The proposed HMP seeks to compensate for the effects along with providing suitable enhancement. Consequently, it is considered that there would be no cumulative effects from the Melvich Wind Energy Hub Grid Connection in combination with the Proposed Development or others lists in this table.	The scheme may affect protected species, but as the Proposed Development will not significantly affect any protected species, the potential for cumulative effects is low.
Strathy South Wind Farm 'Southern Section' Grid Connection	The UGC would connect the consented Strathy South Wind Farm to a new CSE compound near Strathy Wood Wind Farm on-site substation. Although the UGC would directly impact land within the SAC / Ramsar and SSSI (approximately half of the route is within the designated site boundary), the route and alignment is included within the ground of the Strathy South Wind Farm upgraded access track which has been carefully chosen to avoid Annex I habitats. The UGC and upgraded access track route would potentially impact habitats on the western side of the existing access track; the peatland habitats in this location are atypical having been hydrologically impacted by the original construction of the access track. The impacts would also be temporary given the nature of the construction activities. Cumulative effects on designated habitats with the Proposed	The UGC route impacts the same habitats within the WHS as it does for the SAC / Ramsar and SSSI because the boundaries overlap at this location. Such minor and temporary impacts in the context of the c.140,000 ha of peatland within the WHS would reasonably continue to be below the threshold at which a significant effect would occur. Cumulative effects on the WHS are therefore assessed as **Negligible (not significant)**.	No significant cumulative effects on protected species are predicted given the minor extent of the works, and that the impacts would occur alongside the existing track.

Development Name	Potential Cumulative Effects with the Proposed Development		
	Caithness and Sutherland Peatlands SAC/ Ramsar and West Halladale SSSI	Flow Country WHS	Protected Species
	Development are therefore assessed as **Minor adverse (Not Significant).**		
Strathy South Wind Farm 'Northern Section' Grid Connection – Alternative Alignment	Potential for direct impacts within the SAC / Ramsar and SSSI boundary, although the extent of impact, and habitat types affected are not quantifiable without further survey information. However, the magnitude of impact is limited to a small section of the OHL (and likely up to 2 towers) at the western end, and therefore is very minor in the context of the wider designation. Indirect effects on peatland habitats may occur in localised areas where SAC habitats are within the Zone of Influence of construction activities e.g. through changes in hydrology.	Potential for direct impacts within the WHS boundary, although the extent of impact, and habitat types affected are not quantifiable without further survey information.	The scheme may affect protected species, but as the Proposed Development will not significantly affect any protected species, the potential for cumulative effects is low.
Strathy South Wind Farm 'Northern Section' Grid Connection – Proposed Alignment	Potential for direct impacts within the SAC / Ramsar and SSSI boundary, although the extent of impact, and habitat types affected are not quantifiable without further survey information. However, the magnitude of impact is limited to a small section of the OHL (and likely up to 2 towers) at the western end, and therefore is very minor in the context of the wider designation. Indirect effects on peatland habitats may occur in localised areas where SAC habitats are within the Zone of Influence of construction activities e.g. through changes in hydrology.	Potential for direct impacts within the WHS boundary, although the extent of impact, and habitat types affected are not quantifiable without further survey information.	The scheme may affect protected species, but as the Proposed Development will not significantly affect any protected species, the potential for cumulative effects is low.
Strathy South Wind Farm (and	There will be no direct habitat loss within the Caithness and Sutherland SAC / Ramsar/ SSSI resulting from the turbine footprints.	There will be no direct habitat loss within the WHS resulting from the turbine footprints.	The assessment concluded there would be no significant effects to protected species and

Development Name	Potential Cumulative Effects with the Proposed Development		
	Caithness and Sutherland Peatlands SAC/ Ramsar and West Halladale SSSI	Flow Country WHS	Protected Species
Strathy South Substation)	The access track crosses the designated sites but is already in place (and will be upgraded); impacts on qualifying habitats are very minor in extent (approximately 3.71 ha of peatland, of which 3.02 ha is atypical having been hydrologically impacted by the original construction of the access track). When combined with the permanent habitat losses resulting from the Proposed Development (1.49 ha), the cumulative total habitat loss would be 5.2 ha, which represents approximately 0.004% of the total designated area and is very small and localised when considered in the context of the wider site. Cumulative effects with the Proposed Development are therefore assessed as **Minor adverse (Not Significant).**	There will be no direct permanent habitat loss within the WHS boundary. The access track route crosses the same habitats within the WHS as it does for the SAC/ Ramsar and SSSI because the boundaries overlap at this location. Such minor impacts in the context of the thousands c.140,000 ha of peatland within the WHS would reasonably continue to be below the threshold at which a significant effect would occur. Cumulative effects on the WHS are therefore assessed as **Negligible (not significant)**.	therefore there is no potential for cumulative effects with the Proposed Development.
Strathy Switching Station	There will be no direct habitat loss within the Caithness and Sutherland SAC / Ramsar/ SSSI, and therefore there is no potential for cumulative effects with the Proposed Development.	There will be no direct habitat loss within the WHS, and therefore there is no potential for cumulative effects with the Proposed Development.	Given the minor footprint of the development, the potential for cumulative effects on protected species with the Proposed Development can be discounted.
Strathy Wood Wind Farm (and Strathy Wood Substation)	There will be no direct habitat loss within the Caithness and Sutherland SAC / Ramsar/ SSSI, and therefore there is no potential for cumulative effects with the Proposed Development.	There will be no direct habitat loss within the WHS, and therefore is no potential for cumulative effects with the Proposed Development.	The assessment concluded there would be no significant effects on protected species and therefore there is no potential for cumulative effects with the Proposed Development.

7.13 Residual Effects

7.13.1 The assessment concluded that there would be no significant adverse effects on any IEF as a result of the construction or operation of the Proposed Development, with various mitigation measures taken into account including the preparation of a CEMP and Outline HMP. Residual effects therefore remain the same as reported in Section 7.10. Similarly, the cumulative impact assessment in Section 7.12 has concluded that with embedded mitigation there would be no significant cumulative effects with any of the other wind farms and associated grid infrastructure in the Connagill Cluster.

7.14 Biodiversity Enhancement

7.14.1 In line with NPF4 (Scottish Government, 2023), the Onshore Wind Policy Statement (Scottish Government, 2022), and the Scottish Biodiversity Strategy to 2045 (Scottish Government, 2023), consideration has been given to how the Proposed Development can deliver significant enhancements to biodiversity over its lifetime.

7.14.2 An Outline HMP for the Connagill Cluster Grid Connections, which includes the Proposed Development, is being developed in consultation with NatureScot to deliver landscape-scale habitat enhancement to meet the requirements of NPF4 Policy 3 (see **Appendix 7.8**). The final HMP will focus on peat restoration, and this will be developed further through the course of the application determination period. Potential areas for peatland restoration areas that could be taken forwards across the wider landscape are currently under consideration but require landowner agreement before these can be progressed to deliver the HMP and Biodiversity Net Gain (BNG) compensation arising from the Proposed Development.

7.14.3 The SSEN BNG project toolkit has been used to quantify the biodiversity value of the baseline habitats, the loss of biodiversity units during works, the reinstatement of habitats in temporary working areas, and the compensation and enhancement proposals presented in the outline HMP. The Applicant is committed to delivering a 10% net gain for biodiversity following implementation of the Connagill Cluster Outline HMP (**Appendix 7.8**) in line with the Applicant's biodiversity ambition and environmental legacy commitments[9], Sustainability Strategy and Sustainability Plan.

7.15 Summary and Conclusions

7.15.1 Given the nature of the Proposed Development, most of the impacts on terrestrial ecology features will arise from construction, with direct habitat losses restricted to the footprints of the towers, poles, CSE compound and the new sections of permanent access track. The Proposed Development has followed the mitigation hierarchy to avoid harm to ecological features through careful site selection and mitigating effects through embedded mitigation and mitigation by design.

7.15.2 The Proposed Development passes over upland habitats typical of the landscape, which are dominated by mire and wet heath communities that are Annex I habitats and some of which are reliant on ground water influences (GWDTEs). These habitats are internationally important, and their nature conservation importance is recognised through their designation as the Caithness and Sutherland Peatlands SAC and Ramsar and its component West Halladale SSSI, as well as the Flow Country WHS. However, due to the nature of the Proposed Development (which will utilise mostly an existing access track upgraded for the construction and operation of Strathy South and Strathy Wood wind farms), impacts to habitats within the boundary of the designated site are very minor and estimated at 2.57 ha in total, of which 0.42 ha is direct permanent habitat loss, 1.07 ha is indirect permanent habitat loss due to habitat change, and 1.08 ha is temporary habitat loss that will be reinstated post-construction (see **Table 7.7**). As part of the design process towers and poles have been microsited to avoid / minimise impacts on GWDTEs that would be most vulnerable to indirect permanent habitat changes. Effects of habitat loss on designated and non-designated habitats resulting from construction and operation of the Proposed Development are assessed as **Minor adverse (not significant)**.

7.15.3 Signs of protected species including badger (*Meles meles*), otter (*Lutra lutra*), pine marten (*Martes martes*), common lizard (*Zootoca vivipara*) and adder (*Vipera berus*) were identified within the Study Area. The Proposed Development was assessed as resulting in **no significant effects** on these species during construction or operation. No evidence of water vole (*Arvicola amphibius*) was identified in the Study Area, although this species has been recorded in the wider local area and as there is suitable habitat present, this species could be present albeit in very low numbers and not detected by the previous surveys.

7.15.4 Although there were no field signs indicating wildcat presence in the local area, the desk study indicated that there were records of sightings in the Strathy and Melvich areas (most likely to be hybrids rather than true native wildcats), and therefore the occasional presence of the species could not be ruled out. However, if this species is present, habitat loss/ fragmentation and potential disturbance/ displacement was assessed as negligible and effects on the species concluded to be **Negligible (not significant)**.

7.15.5 Embedded mitigation relevant to identified ecological receptors include the routeing design process (which sought to minimise impacts on sensitive habitats), the development and implementation of a site-specific CEMP, which will be used in conjunction with the Applicant's General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs). Furthermore, a suitably experienced ECoW would be appointed to undertake pre-construction surveys for protected species and oversee construction works to minimise any potential effects on nature conservation interests.

7.15.6 As no specific mitigation requirements have been identified as necessary to reduce the magnitude of impacts to any IEFs (over and above the embedded mitigation and mitigation by design that has informed the ecological impact assessment), the Proposed Development is also predicted to result in **no significant residual effects** on habitats or protected species.

7.15.7 No significant cumulative effects to IEFs with any of the other wind farms and grid connections (consented and proposed) that form part of the Connagill Cluster have been identified. A landscape scale HMP, combining the HMPs for all of the other projects, is being developed in consultation with NatureScot to address the cumulative habitat losses of peatland, including within the boundaries of the Flow Country WHS and Caithness and Sutherland Peatlands SAC / Ramsar.

7.16 References

Bat Conservation Trust (2016) *Bat surveys for professional ecologists: Good practice guidelines 3rd edition*. Bat Conservation Trust, London.

Campbell R. D., Gaywood M.J., & Kitchener A.C. (Eds.) (2023). Scottish Wildcat Action: Final Summary Report. NatureScot, Inverness. Available online at: Scottish Wildcat Action (SWA) - Final Summary Report 2023 | NatureScot

CIEEM (2018) *Guidance for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.2 Updated April 2022*. CIEEM, Winchester.

NatureScot (2021) *Caithness and Sutherland Peatlands Special Area of Conservation (SAC) Conservation Advice Package*. Available online at: https://sitelink.nature.scot/site/8218

Scottish Environmental Protection Agency (2017) *Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems*.

Scottish Government (2019) *Scotland's Forestry Strategy 2019 – 2029*. Available online at: https://www.forestry.gov.scot/forestry-strategy

Scottish Government (2023) National Planning Framework 4. Available online at: National Planning Framework 4 - gov.scot (www.gov.scot)

Scottish Natural Heritage (2013) *Scottish Wildcat Action Plan 2013*. Available online at: Scottish Wildcat Conservation Action Plan (nls.uk)

The Highland Council (2012) Highland Wide Local Development Plan

The Highland Council. Highland Nature Biodiversity Action Plan 2021 – 2026. Available online at: Highland Nature Biodiversity Action Plan 2021 to 2026 |