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4. ECOLOGY

4.1 Executive Summary

- 4.1.1 This Chapter considers the potential impacts of the Proposed Development on non-avian ecology including designated sites, terrestrial and aquatic habitats, and protected species, and reaches conclusions as to the predicted likely significance of 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).
- 4.1.2 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.
- 4.1.3 The Proposed Development overlaps with the Kinloch and Kyleakin Hills Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) and passes through areas of habitat listed on the Ancient Woodland Inventory. Most of the study area consists of open upland heath and bog habitats. Patches of other habitat types break up the expanses of wet heath and blanket bog; with the respective communities often forming complex mosaics and transitional areas. Protected species including badger, bats, hares, otter, pine marten, red squirrel and reptiles are likely to be within the study area, with a number of watercourses providing suitable habitat for salmonid populations.
- 4.1.4 The Proposed Development has been designed to minimise impacts on important habitats, peatland and protected species as far as practicable. This has been achieved through embedded mitigation and the iterative design process. This process, combined with further commitments to certain mitigation measures pre-construction, during construction, and during operation, allowed potential effects on several habitats and species present to be scoped-out of the assessment.
- 4.1.5 The following Important Ecological Features (IEFs) were taken forward to the assessment stage: the Kinloch and Kyleakin Hills SAC and SSSI sites (including lichen and bryophyte assemblages), ancient woodland, broadleaved woodland, blanket bog (including wet modified bog), wet heath, dry heath and otter.
- 4.1.6 Assessment of predicted effects and their significance were determined through consideration of the sensitivity of the feature (nature conservation value and conservation status) and the characterisation of impact. The most tangible effect during construction of the Proposed Development on most IEFs would be direct habitat loss due to the construction of infrastructure, in addition to some indirect drainage effects on wetland habitats. Dismantling of the existing OHL could have beneficial effects on woodland habitats due to removal of the need for maintaining an operational corridor, although could cause disturbance to otter through proximity of suitable habitat and known resting sites. Operational impacts could have adverse impacts on the woodland habitat of the Kinloch and Kyleakin Hills SAC and SSSI through maintenance of the operational corridor.
- 4.1.7 The assessment concluded that there would be residual significant adverse effects on the Kinloch and Kyleakin Hills SAC and SSSI, and on ancient woodland during construction; predicted significant beneficial effects on the Kinloch and Kyleakin Hills SAC and SSSI and ancient woodland due to the dismantling of the existing OHL; and predicted significant adverse effects on the Kinloch and Kyleakin Hills SAC and SSSI during operation. There would be no significant adverse effect on the Kinloch and Kyleakin Hills SAC and SSSI through cumulative effects with a Scottish Forestry Alliance (SFA) woodland expansion project. Overall, the beneficial effects of dismantling could potentially lead to a net-gain of western acidic oak woodland in the long-term. A detailed assessment of the impacts on the qualifying features of the Kinloch and Kyleakin Hills SAC has been undertaken in a Shadow HRA for the Proposed Development to meet the requirements of the 2017 Habitat and Species Regulations.

4.1.8 To compensate residual significant adverse effects on the Kinloch and Kyleakin Hills SAC and SSSI habitats, a Habitat Management Plan (HMP) would be developed for the relevant qualifying features affected. Significant adverse effects through the loss of ancient woodland would be reduced through compensation planting, which would be detailed in a HMP for habitats outwith the SAC. The HMP would also be designed to reduce the effects on other IEF habitats and provide enhancement at the Site.

4.2 Introduction

4.2.1 This Chapter considers the potential impacts of the Proposed Development on non-avian ecology, including designated sites, terrestrial and aquatic habitats, and protected species, and assesses the significance of the likely predicted residual effects. The specific objectives of this Chapter are to:

- describe the scope of assessment and methodology;
- describe the ecological baseline;
- determine the importance of ecological features;
- consider embedded or standard mitigation measures and whether this leads to any impacts on ecological features being scoped out;
- identify and characterise potential impacts and their predicted effects on important ecological features, including direct, indirect and cumulative;
- assess the significance of potential effects;
- describe the non-standard mitigation measures proposed to address any predicted significant effects;
- assess the significance of predicted residual effects remaining following the implementation of mitigation; and
- consider compensation and/or enhancement to offset significant effects and/or deliver a net-benefit.

4.2.2 Effects on birds are addressed separately in **Volume 2, Chapter 5: Ornithology**. The effects on hydrology are addressed in **Volume 2, Chapter 6: Water Environment** and effects on peat and soils in **Volume 2, Chapter 7: Geology and Soils Environment**. Chapter 6 also considers the hydrological effects on Groundwater Dependent Terrestrial Ecosystems (GWDTEs) identified in the baseline section of this Chapter. Further detailed information on forestry and felling proposals is contained within **Volume 2, Chapter 9: Forestry**.

4.2.3 This ecological assessment has been carried out by MacArthur Green using guidance from NatureScot (formerly Scottish Natural Heritage, SNH, 2018)¹ and the Chartered Institute of Ecology and Environmental Management (CIEEM, 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 V1-5.1: EIA Team**, contained within Volume 5 of this EIA Report.

4.2.4 The Chapter is supported by the following figures and appendices, provided in Volumes 3 and 5 respectively.

- **Figure V2-4.1: Ecological Designated Sites and Ancient Woodland within 5 km**
- **Figure V2-4.2: Carbon and Peatland Map 2016**
- **Figure V2-4.3: National Vegetation Classification Survey Area and Results**
- **Figure V2-4.4: Protected Species Survey Area and Results**
- **Figure V2-4.4C: Confidential Protected Species Survey Results**
- **Figure V2-4.5: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Area and Results**

¹ 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.

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

- **Appendix V2-4.1: Legislation, Policy and Guidance**
- **Appendix V2-4.2: Assessment Methodology**
- **Appendix V2-4.3: National Vegetation Classification and Habitats Survey Report**
- **Appendix V2-4.4: Protected Species Survey Report³**
- **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**
- **Appendix V2-4.6: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Report**
- **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**

4.2.5 The Confidential Annex of **Appendix V2-4.4: Protected Species Survey Area and Results** and **Figure V2-4.4C: Confidential Protected Species Survey Results** will not be published with the EIA Report due to the potential risk to protected species. However, they will be issued to the Scottish Ministers and NatureScot.

4.3 Scope of Assessment and Methodology

Scope of the Assessment

- 4.3.1 This Chapter considers the potential impacts of the Proposed Development, including cumulative effects with other relevant developments requiring an Environmental Impact Assessment (EIA), 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 **Volume 2, Chapter 6: Water Environment**); 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).
- 4.3.2 The area in which the Proposed Development would be sited is shown on **Figure V1-3.1a-qq: Proposed Development** and includes areas for all temporary and permanent infrastructure, including Limits of Deviation (LoD). An operational corridor within woodland areas would also be required (see **Volume 2, Chapter 9: Forestry**). These areas are referred to in this Chapter as ‘the Site’.
- 4.3.3 The assessment is based on the description of the Proposed Development that is provided in **Volume 1, Chapter 3: Project Description** (and related Appendices) and **Volume 2, Chapter 2: Section by Section Overview**. This assessment also takes into consideration the routeing process, which sought to avoid important ecological features where possible, as described in **Volume 1, Chapter 4: The Routeing Process and Alternatives**. The scope of the assessment has been informed by consultation, included in **Volume 1, Chapter 6: Scope and Consultation**, and appropriate policy, legislation and guidance (detailed in **Appendix V2-4.1: Legislation, Policy and Guidance**).

³ Includes a Confidential Annex for sensitive protected species information.

4.3.4 The assessment of ecological impacts of the Alternative Alignment within Section 3 of the project is detailed within **Volume 6, Chapter 4: Ecology**.

Consultation

4.3.5 Full details of the consultation process and responses are included in **Volume 1, Chapter 6: Scope and Consultation** and associated appendices, with specific responses relating to ecology included in **Table V2-4.1: Scoping Responses**.

Table V2-4.1: Scoping Responses

Organisation	Response	Comment
Energy Consents Unit (ECU)	Marine Science Scotland (MSS) provide generic scoping guidelines for OHL development which outline how fish populations can be impacted during construction, operation and decommissioning. The guidelines inform developers as to what should be considered during the EIA Process.	The MSS guidance has been used to inform the assessment. Fish habitat surveys have been undertaken in Section 2 and 6 of the project where underground cable is proposed (see also Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report). The potential effects on fish are considered in paragraphs 4.5.20 to 4.5.32 .
	In addition to identifying the main watercourses and waterbodies within and downstream of the Proposed Development area, the Applicant should identify and consider any Special Areas of Conservation (SACs) where fish are a qualifying feature. The Applicant should also consider proposed felling operations, particularly in acid sensitive areas.	Watercourses related to the Proposed Development are detailed in Volume 2, Chapter 6: Water Environment . There are no SACs where fish are a qualifying feature connected to the Proposed Development. Felling requirements are set out within Volume 2, Chapter 9: Forestry and associated appendices. With standard construction mitigation in place, detailed within paragraphs 4.5.3 to 4.5.7 , significant effects on watercourses due to proposed felling operations were scoped out of the assessment.
	The EIA Report should make use of the checklist in MSS's standing advice for OHL development to ensure the required information is provided. The absence of this information may necessitate a request for additional information which may delay the determination process. The Applicant is required to submit the completed checklist in advance of submission of the application.	This has been noted. The required information has been provided in advance of submission of the application.
The Highland Council (THC)	<p>THC outlined that the EIA Report should include;</p> <p>a baseline survey of the bird and animals (mammals, reptiles, amphibians, etc) interest on site. Detail on rare and threatened habitats, and those protected by European or UK legislation, or identified in national or local Biodiversity Action Plans should be presented;</p> <p>habitat enhancement and mitigation measures should be detailed, particularly in respect to blanket bog, in the context of both biodiversity conservation and net gain, along with details of any agreements with landowners;</p>	<p>The following confirms where each point listed in THC's response has been addressed:</p> <p>Relevant ecological survey work is presented in this chapter and associated appendices (see Volume 2 – Chapter 5: Ornithology for bird survey information);</p> <p>The Applicant is committed to incorporating Biodiversity Net Gain (BNG) into their projects and a BNG assessment will be provided and agreed upon with relevant consultees post submission of the application and prior to determination, secured by a condition of consent.</p> <p>The Proposed Development falls within the Highland BAP, as discussed in paragraphs</p>

Organisation	Response	Comment
	<p>an address to whether or not the development could assist or impede delivery of elements of relevant Biodiversity Action Plans;</p> <p>analysis of the presence of protected species such as Schedule 1 Birds or European Protected Species;</p> <p>an address of the likely impacts on the nature conservation interests of all the designated sites in the vicinity of the proposed development and proposed mitigation;</p> <p>assessment of the potential impact on wild deer;</p> <p>an assessment of the aquatic interests within local watercourses;</p> <p>assessment of the effects on Ground Water Dependent Terrestrial Ecosystems (GWDTE).</p>	<p>4.4.15 to 4.4.16. Important habitat types considered in the BAP correlate to the Important Ecological Features considered in the assessment. With a commitment to BNG and delivery of a Habitat Management Plan (HMP) (details of which will be provided and agreed upon with relevant consultees post-submission of the application and prior to construction commencing, secured by a condition of consent), the Proposed Development would in the long-term have a positive contribution to elements in the BAP.</p> <p>Analysis of the presence of European Protected Species is discussed in this chapter (see Volume 2 – Chapter 5: Ornithology for analysis of Schedule 1 birds).</p> <p>Designated sites within the study area are included in Table V2-4.2: Statutory Designated Sites. Impacts on most designated sites within the study area are scoped out in paragraphs 4.5.10 to 4.5.14. Potential effects on The Kinloch and Kyleakin Hills SAC and SSSI sites are taken through the assessment.</p> <p>Potential effects on deer are discussed in paragraphs 4.4.31 to 4.4.36.</p> <p>The potential effects on aquatic ecology are considered in paragraphs 4.5.20 to 4.5.31.</p> <p>An assessment of the effects on GWDTE is presented in Appendix V2-6.4: Groundwater Dependent Terrestrial Ecosystems (GWDTE) Assessment.</p>
<p>Ness District Salmon Fishery Board</p>	<p>NDSFB recommend that electrofishing surveys are completed at the crossing point at Invervigar Burn, and potentially other crossings in Section 6 of the project, as the area is accessible to migratory salmonids including Atlantic salmon which are a protected species.</p>	<p>Fish habitat surveys have been undertaken along the underground cable crossing points of the project in Sections 2 and 6. Detailed methods and results are provided in Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report.</p>
<p>NatureScot</p>	<p>With regards to the sensitivity of Section 3 through the Kinloch and Kyleakin Hills SAC, if the appropriate assessment is unable to demonstrate 'no adverse effect on site integrity' NS would object to the proposal.</p> <p>NS agree that results of detailed habitat survey and assessment should be used to select a route and design option that minimises impacts to the qualifying interests of the SAC. Their final view of which route would result in the least damage to the SAC qualifying habitats, including priority blanket bog habitat, will depend on the results of the detailed habitat survey and assessment.</p>	<p>A Shadow HRA is included in Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal.</p> <p>A Shadow HRA is included in Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal.</p> <p>The assessment of the Alternative Alignment within Section 3 of the project through the SAC is also included within the Shadow HRA.</p>

Organisation	Response	Comment
	<p>NS advise that an appropriate assessment would be required to consider both permanent and temporary, direct and indirect impacts to each of the SAC qualifying habitats including the amount of habitat expected to be lost, damaged or modified as a result of the proposals.</p> <p>Detailed information on the construction process within the SAC should also be provided, including the location, extent and type of infrastructure, and description of methods. Assessment should also consider operational management practices within the SAC (e.g., access and maintenance, include any wayleave maintenance).</p> <p>NS advise that all potential alternative route options and design solutions are kept open until further detailed assessment and a shadow HRA have been undertaken.</p>	
	<p>NS advise that the EIA Report includes full details of the habitat survey results to NVC sub-community level supported by peat depth survey where relevant. They recommend that maps of the NVC polygons are included with all infrastructure and access routes overlain.</p>	<p>Detailed NVC surveys were carried out across the Site and are referred to throughout this Chapter. Full results are included in Appendix V2-4.3: National Vegetation Classification (NVC) and Habitats Survey Report and shown on Figure V2-4.3: National Vegetation Classification (NVC) Survey Area and Results, with infrastructure and access routes overlain.</p> <p>Volume 2 – Chapter 7: Geology and Soils sets out peat depth survey results and assessment of impacts on peat soils.</p>
	<p>Mitigation measures to minimise impacts should be provided. NS recommend details of proposed reinstatement and restoration works are set out in the EIA Report.</p>	<p>This Chapter discusses appropriate mitigation measures to avoid and reduce predicted impacts. A reinstatement and restoration plan is included in Appendix V1-3.7: Site Reinstatement and Restoration Plan.</p>
	<p>NS advise that the potential for disturbance to otters and impacts to supporting habitats are considered in the EIA Report.</p>	<p>Potential impacts and effects on otter and their supporting habitat are discussed within this Chapter.</p>
	<p>NS would expect the EIA Report to confirm that impacts to the Sligachan SAC and SSSI in Sections 1 and 2 could be mitigated by appropriate construction methods and effective silt and pollution prevention measures.</p>	<p>As detailed in paragraph 4.5.12, impacts on the Sligachan SAC and SSSI could be mitigated by appropriate construction methods and effective silt and pollution prevention measures (detailed in paragraphs 4.5.3 to 4.5.7).</p>
	<p>NS are content that potential impacts on the Lochs Duich, Long and Alsh Reefs SAC are scoped out, unless there is a possibility that access from the coast through this protected area is proposed.</p>	<p>Potential impacts on the Lochs Duich, Long and Alsh Reefs SAC are discussed in paragraph 4.5.11.</p>
	<p>Scottish Planning Policy affords 'significant protection' to carbon-rich soils, deep peat and priority peatland habitat. If such areas</p>	<p>The Proposed Development has been informed by peat probing surveys to establish peat depth and appropriate</p>

Organisation	Response	Comment
	<p>could be affected, NS would expect the EIA Report to demonstrate how any significant effects can be substantially overcome by siting, design or other mitigation. Site specific surveys should be carried out along to confirm the quality and distribution of peatland habitats.</p>	<p>mitigation (see Appendix V2-7.3: Peat Management Plan), and a NVC survey to identify priority peatland habitats (Appendix V2-4.3: National Vegetation Classification (NVC) and Habitats Survey Report and shown on Figure V2-4.3: National Vegetation Classification (NVC) Survey Area and Results).</p>
	<p>NS would expect the EIAR to include mapped information on peatland habitats to NVC level, together with a detailed description of current condition.</p>	<p>Detailed NVC surveys were carried out across the Site. Full results and description of habitat condition are included in Appendix V2-4.3: National Vegetation Classification (NVC) and Habitats Survey Report and shown on Figure V2-4.3: National Vegetation Classification (NVC) Survey Area and Results.</p> <p>(See also Volume 2 – Chapter 7: Geology and Soils).</p>
	<p>NS advise that all infrastructure and access routes are clearly mapped in relation to the NVC data and that the EIA Report includes full details of construction methods, access, any ground preparation and drainage requirements, for both construction of the new line and removal of the existing one. They advise direct and indirect, temporary and permanent impacts from the proposal as a whole (construction and operation of the new line, and removal of the existing one) should be quantified in the EIA Report. Although temporary tracks are mainly proposed, minimising their requirement, careful siting and effective restoration will be key to mitigating impacts to priority peatland and other sensitive upland habitats.</p>	<p>The assessment in this Chapter is based on the description of the Proposed Development that is provided in Volume 1, Chapter 3: Project Description (and related Appendices).</p> <p>Infrastructure is overlain against NVC mapping in Figure V2-4.3: National Vegetation Classification (NVC) Survey Area and Results.</p>
	<p>NS advise that the EIA Report includes details of reinstatement and habitat restoration measures (including those associated with removal of the existing line) within a Peatland Management Plan and Habitat Management Plan.</p>	<p>A reinstatement and restoration plan is included in Appendix V1-3.7: Site Reinstatement and Restoration Plan.</p> <p>A peat management plan is included in Appendix V2-7.3: Peat Management Plan (PMP).</p> <p>The Applicant is committed to delivering a HMP for the Proposed Development, details of which will be provided and agreed upon with relevant consultees post-submission of the application and prior to construction commencing, secured by a condition of consent.</p>
	<p>NS recommend that survey work for protected species follows the methods published on their website. If protected species could be affected mitigation details / Species Protection Plans should also be included in the EIA Report.</p>	<p>NatureScot's published methods have been considered in all survey work regarding protected species. The Applicant has developed General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs) in agreement with statutory consultees, including SEPA and NatureScot. These are set out within Appendix V1-3.5: General Environmental</p>

Organisation	Response	Comment
		<p>Management Plans (GEMPs) and Species Protection Plans (SPPs).</p> <p>Potential impacts on aquatic habitat and species, including freshwater pearl mussel, are discussed in paragraphs 4.5.20 to 4.5.31.</p> <p>The potential effects on Annex 1 habitats are discussed in this Chapter. The Proposed Development has been informed by NVC surveys to identify sensitive habitats and minimise effects where possible.</p> <p>The Applicant is committed to delivering a HMP for the Proposed Development, details of which will be provided and agreed upon with relevant consultees post-submission of the application and prior to construction commencing, secured by a condition of consent.</p> <p>Potential effects on deer are discussed in paragraphs 4.4.31 to 4.4.36.</p>
<p>RSPB (Scotland)</p>	<p>NS advise that potential impacts on sensitive water species, including freshwater pearl mussels, be factored into route selection and access arrangements. It is noted that specific surveys are scoped out.</p> <p>Successful reinstatement of some Annex 1 habitats, including fragile upland habitats and peatland, may be difficult to achieve and NS advise that survey results are used to inform the design and layout process, so that the development avoids, where possible, sensitive Annex 1 habitats. Where this is not possible, habitat loss and damage, both direct and indirect, should be determined and suitable mitigation and / or restoration measures presented in a Habitat Management Plan.</p> <p>If there is potential for deer displacement during construction, NS recommend that the EIA Report includes an assessment of the potential impacts of the development on deer welfare, habitats, road safety, neighbouring and other interests such as nearby protected areas.</p>	<p>A detailed HMP should be prepared and submitted as part of the proposals. RSPB welcome the Applicant's commitment to achieve an overall 'No Net Loss' and to achieve Biodiversity Net Gain (BNG) where possible. Relevant proposals should be included in the HMP.</p> <p>The Applicant is committed to delivering a HMP for the Proposed Development, details of which will be provided and agreed upon with relevant consultees post submission of the application and prior to construction commencing, secured by a condition of consent. In addition, the Applicant is committed to incorporating BNG into their projects and a BNG assessment will be provided and agreed upon with relevant consultees post-submission of the application and prior to determination.</p>
<p>Scottish Environment Protection Agency (SEPA)</p>	<p>SEPA encourage the Applicant to outline any opportunities for habitat restoration or enhancement, particularly peatland restoration or improvements to riparian habitats.</p>	<p>The Applicant is committed to delivering a HMP for the Proposed Development, details of which will be provided and agreed upon with relevant consultees post submission of the application and prior to construction commencing, secured by a condition of consent. With the Applicant's commitment to BNG, opportunities for restoration and enhancement of habitats, to have an overall positive impact, will also be detailed in a BNG report.</p>

Study Area

- 4.3.6 The area within which the desk-based research and field surveys were undertaken varies depending on the ecological feature. Details of the survey area and study area extents are described in the relevant sections in **Appendix V2-4.2: Assessment Methodology**, **Appendix V2-4.3: NVC and Habitats Survey Report**, **Appendix V2-4.4: Protected Species Survey Report**, and **Appendix V2-4.6: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Report**, and shown on **Figures V2-4.3: National Vegetation Classification Survey Area and Results**, **Figures V2-4.4: Protected Species Survey Area and Results** and **Figures V2-4.5: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Area and Results**. Hereafter in this Chapter, for each ecological feature, the area that was covered by field surveys is termed the 'survey area' and the area which is to be considered as part of the assessment process is referred to as the 'study area'. These are defined on the relevant Figures for the different field surveys.

Determining Baseline

- 4.3.7 The methodology for determining the ecological baseline through desk study and field surveys is detailed within **Appendix V2-4.2: Assessment Methodology**.

Methodology for the Assessment of Impacts

- 4.3.8 The impact assessment methodology for the Ecological Impact Assessment (EclA) is detailed within **Appendix V2-4.2: Assessment Methodology** and addresses the requirements of the EIA Regulations through adherence to the guidance referred to in **paragraph 4.2.3** above.
- 4.3.9 The assessment methodology applied to European sites is designed to meet the legal requirements of Regulation 63 of the Conservation of Habitats and Species Regulations 2017 ("the 2017 Habitats Regulations").

4.4 Ecological Baseline

Desk-Study

Statutory Designated Sites

- 4.4.1 The Proposed Development overlaps with two statutory designated sites, the Kinloch and Kyleakin Hills SAC and the Kinloch and Kyleakin Hills (Monadh Chaol Acainn is Cheann Loch) Site of Special Scientific Interest (SSSI) (both within Section 3). The Proposed Development also passes over the Mointeach nan Lochain Dubha SAC and SSSI (Section 3), Lochs Duich, Long and Alsh Reefs SAC (Sections 3 and 4) and the Inner Hebrides and the Minches SAC (Sections 3 and 4), however, no works would be undertaken within these designated sites. In addition, there are five SACs, one Marine Protected Area (MPA) and 13 SSSIs within 5 km of the Proposed Development. Details of all the designated sites within 5 km of the Proposed Development are listed in **Table V2-4.2: Statutory Designated Sites** and shown in **Figures V2-4.1: Ecological Designated Sites and Ancient Woodland within 5 km**.
- 4.4.2 Sites designated for ornithological interests only, or any ornithological qualifying interests or Notified Natural Features of sites considered here, are discussed in **Volume 2, Chapter 5: Ornithology**. Sites designated for geological interests only, or any geological/earth sciences Notified Natural Features of sites considered here, are discussed in **Volume 2, Chapter 7: Geology and Soils Environment**.
- 4.4.3 A detailed assessment of potential impacts on qualifying features of the Kinloch and Kyleakin Hills SAC has also been undertaken separately under the Habitats Regulations and is included in **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**.

Table V2-4.2: Statutory Designated Sites

Site Name	Distance to Proposed Development LoD ⁴	Qualifying Interests/Notified Natural Features	Connectivity with Proposed Development
Section 0			
Ascrib, Isay and Dunvegan SAC	1.9 km	Harbour seal (<i>Phoca vitulina</i>).	Given the distance and scope of works, there would be no impacts on the designated site.
Geary Ravine SSSI	3.1 km	Tall herb ledge, upland mixed ash woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Section 1			
Allt Grillan Gorge SSSI	4.9 km	Upland mixed ash woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Section 2			
Sligachan Peatlands SAC	9 m to new permanent access track	Blanket bog, Depressions on peat substrates, Acid peat-stained lakes and ponds, Wet heathland with cross-leaved heath, Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, Very wet mires often identified by an unstable 'quaking' surface.	The Proposed Development would not pass through the SAC or SSSI. A new permanent access track is proposed on the eastern side of the A87 and crosses a minor first order tributary watercourse that feeds into the Allt Dubh and Sligachan Peatlands SAC and SSSI on the west of the A87. A small degree of underground cabling works would also be undertaken within the catchment of this same minor watercourse.
Sligachan SSSI	9 m to new permanent access track	Blanket bog, Dystrophic and oligotrophic lochs, Vascular plant assemblage.	
Cuillins SSSI	0.7 km	Alkaline fen, Blanket bog, Bryophyte assemblage, Flood-plain fen, Open water transition fen, Subalpine dry heath, Tall herb ledge, Upland birch woodland, Vascular plant assemblage.	The Proposed Development is entirely located downstream of the SSSI. There will therefore be no impacts on the SSSI.
Section 3			
Strath SAC	0.5 km	Alpine and subalpine calcareous grasslands, Base-rich fens, calcium-rich nutrient-poor lakes, lochs and pools, Hard-water springs depositing lime, Limestone pavements, Mixed woodland on base-rich soils associated with rocky slopes, Plants in crevices on base-rich rocks, wet heathland with cross-leaved heath.	The Proposed Development is entirely located downstream of the Strath SAC and SSSI and is not hydrologically linked. There would therefore be no impacts on the designated sites.

⁴ Where a designated site falls within 5 km of more than one Section, it is listed only once, under the Section within nearest proximity.

Site Name	Distance to Proposed Development LoD ⁴	Qualifying Interests/Notified Natural Features	Connectivity with Proposed Development
Strath SSSI	0.5 km	Base-rich loch, Molluscs, Upland assemblage, Upland birch woodland, Vascular plant assemblage.	
Mointeach nan Lochain Dubha SAC	0 m	Acid peat-stained lakes and ponds, Blanket bog, Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels, Depressions on peat substrates, Very wet mires often identified by an unstable 'quaking' surface.	The Proposed Development would span the northern tip of the Mointeach nan Lochain Dubha SAC and SSSI. No towers or access tracks would be within the designated sites' boundaries, and no works would be carried out within the boundaries.
Mointeach nan Lochain Dubha SSSI	0 m	Blanket bog, Oligotrophic loch.	
Kinloch and Kyleakin Hills SAC	0 m	Alpine and subalpine heaths, Blanket bog, Dry heaths, Mixed woodland on base-rich soils associated with rocky slopes, Otter, Western acidic oak woodland, Wet heathland with cross-leaved heath.	The Proposed Development would pass through the Kinloch and Kyleakin Hills SAC and SSSI.
Kinloch and Kyleakin Hills SSSI	0 m	Alpine heath, Blanket bog, Bryophyte assemblage, Lichen assemblage, Otter, Subalpine dry heath, Subalpine wet heath, Upland oak woodland.	
Lochs Duich, Long and Alsh Reefs SAC	0 m	Reefs.	No construction works would occur within the SAC. A new permanent access track is proposed adjacent to the SAC to allow plant and materials to be transported across the water via a landing craft during construction and operation of the Proposed Development.
Lochs Duich, Long and Alsh MPA	0.04 km	Burrowed mud, Flame shell beds.	No construction works would occur within the MPA. A new permanent access track is proposed adjacent to the MPA to allow plant and materials to be transported across the water via a landing craft during construction and operation of the Proposed Development.
Inner Hebrides and the Minches SAC	0.04 km	Harbour porpoise (<i>Phocoena phocoena</i>).	Due to the scope of works, impacts on the designated species would be unlikely.
Coille Mhor SAC	3.9 km	Western acidic oak woodland.	Given the distance and scope of works, there would be no impacts on the designated site.

Site Name	Distance to Proposed Development LoD ⁴	Qualifying Interests/Notified Natural Features	Connectivity with Proposed Development
Coille Mhor SSSI	3.9 km	Dragonfly assemblage, Oligotrophic loch, Upland oak woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Section 4			
Cosag Sallow Carr SSSI	0.8 km	Lichen assemblage, Wet woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Coille Mhialairidh SSSI	4.9 km	Upland oak woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Glen Barisdale SSSI	4.7 km	Lichen assemblage, Native pinewood, Upland birch woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Section 5			
Garry Falls SSSI	0.5 km	Bryophyte assemblage, Upland mixed ash woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
South Laggan Fen SSSI	3.8 km	Transition open fen.	Given the distance and scope of works, there would be no impacts on the designated site.
Section 6			
Ness Woods SAC	2.4 km	Mixed woodland on base-rich soils associated with rocky slopes, Otter, Western acidic oak woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Easter Ness Forest SSSI	4.9 km	Upland mixed ash woodland, Upland oak woodland.	Given the distance and scope of works, there would be no impacts on the designated site.
Glen Tarff SSSI	2.4 km	Beetle (<i>Bolitophagus reticulatus</i>), Upland mixed ash woodland.	Given the distance and scope of works, there would be no impacts on the designated site.

4.4.4 Section 3 passes through the Kinloch and Kyleakin Hills SAC and SSSI which are designated for the habitats detailed in **Table V2-4.2: Statutory Designated Sites**. The SSSI citation⁵ notes that the site is characterised by an extensive area of upland habitats that extend from sea level to over 700 m. There is ancient semi-natural woodland around the coast with relatively intact transitions from marine to woodland to upland habitats. The site also supports nationally important assemblages of mosses, liverworts and lichens.

4.4.5 A large area within Section 3, which overlaps with the Kinloch and Kyleakin Hills SAC and SSSI, is managed by Forestry and Land Scotland (FLS). The overarching aims of the FLS Kinloch Hills and Broadford Land

⁵ Citation: Kinloch and Kyleakin Hills (Monadh Chaol Acainn Is Cheann Loch) Site of Special Scientific Interest. Available at: <https://sitelink.nature.scot/site/8173>

Management Plan (LMP) 2019-2029⁶ state the open habitat and native woodland will be managed to enhance the SAC qualifying features and peatland restoration will be undertaken to expand the open habitat areas surrounding the SAC. Where the Proposed Development within Section 3 passes through the SAC, there are ongoing works as part of a Scottish Forestry Alliance (SFA) woodland expansion project for natural regeneration along the edge of the Mudalach woodlands (see **Figure 3 of Appendix V2-4.7 Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**).

Non-statutory Designations and Ancient Woodland

- 4.4.6 There are no known non-statutory designation sites (such as local nature reserves) within the study area.
- 4.4.7 Habitat listed on the Ancient Woodland Inventory (AWI)⁷ within 5 km of the Proposed Development is mapped on **Figure V2-4.1: Ecological Designated Sites and Ancient Woodland within 5 km**. The definition of ancient woodland is land that is currently wooded and has been continually wooded, at least since 1750. It is not related to the age of the trees that are currently growing there; they do not have to be ancient or elderly, it is the historical continuity of the woodland habitat that makes a woodland ancient. The AWI holds information on the location and extent of ancient woodland within Scotland, and categorises each stand as follows:
- **Ancient Woodland (1a and 2a)** - Interpreted as semi-natural woodland from maps of 1750 (1a) or 1860 (2a) and continuously wooded to the present day. If planted with non-native species during the 20th century they are referred to as Plantations on Ancient Woodland Sites (PAWS);
 - **Long-established woodlands of plantation origin (LEPO) (1b and 2b)** - Interpreted as plantation from maps of 1750 (1b) or 1860 (2b) and continuously wooded since. Many of these sites have developed semi-natural characteristics, especially the oldest stands, which may be as rich as Ancient Woodland; and
 - **Other woodlands on Roy maps (3)** - Shown as un-wooded on the 1st Edition of the Ordnance Survey maps (produced in circa 1850) but as woodland on the Roy maps (produced in circa 1750). Such sites have, at most, had only a short break in continuity of woodland cover and may still retain features of Ancient Woodland.
- 4.4.8 The Proposed Development does not interact with any areas of ancient woodland within Section 0. Although an area of Category 2b Long-established (of plantation origin) at Lusta, and an area of Category 2a Ancient woodland (of semi-natural origin) at Pairc Dhubh exist within 1 km of Section 0.
- 4.4.9 The Proposed Development does not interact with any areas of ancient woodland (as listed in the AWI) within Section 1, or within 5 km.
- 4.4.10 The Proposed Development does not interact with any areas of ancient woodland (as listed in the AWI) within Section 2, although several areas of Category 2a Ancient woodland (of semi-natural origin) are present within 5 km, the closest being over 0.4 km north of Section 2 towards the eastern extent.
- 4.4.11 Section 3 passes through Mudalach woodland identified on the AWI. The OHL route intersects with the woodland here, with additional areas falling beneath the footprint of the access track. Most of the woodland is classified as ancient of semi-natural origin (1a) with one stand in the west of Mudalach classified as ancient of semi-natural origin (2a), one further small area in the west of Mudalach is classified as other woodlands on Roy maps (3).
- 4.4.12 There are nine areas of ancient woodland within Section 4 (three areas of Category 1a, five areas of Category 2a and one area of Category 2b), with numerous other areas of ancient woodland within 5 km of the Proposed

⁶ Forestry and Land Scotland (2019). Kinloch Hills and Broadford Land Management Plan 2019-2029.

⁷ <https://data.gov.uk/dataset/c2f57ed9-5601-4864-af5f-a6e73e977f54/ancient-woodland-inventory-scotland> [Accessed February 2022]

Development. These are mostly small, highly fragmented areas of woodland, with some more extensive areas, including a 320 hectare (ha) site at Glac an Tobair.

- 4.4.13 There are approximately twelve areas of ancient woodland along the line of the Proposed Development and within the LoD for Section 5 (eleven areas of Category 2a, and one area of Category 2b), with numerous other areas of ancient woodland within 5 km of the Proposed Development. The areas of habitat within Section 5 include small, highly fragmented areas of woodland with larger areas along the northern shores of Loch Garry.
- 4.4.14 Within Section 6, the Proposed Development passes through two areas of ancient woodland, at Achadh nan Darach Beag and Auchteraw Wood, both categorised as Category 2a, with other areas of ancient woodland also recorded within 5 km of the Proposed Development.

Local Biodiversity Action Plan

- 4.4.15 The Site falls within the area covered by the Highland Nature Biodiversity Action Plan (BAP) 2021-2026⁸. Part of the Site also falls into the area of the Skye and Lochalsh Biodiversity Action Plan (BAP)⁹. This local BAP has not been updated since 2003, and the Skye and Lochalsh Environment Forum¹⁰ (a group set up to implement the Local BAP) reference the Highland BAP themselves, and therefore the Highland BAP has been used as the main reference for the assessment, although information contained with the Skye and Lochalsh BAP has been used where relevant.
- 4.4.16 The Highland BAP includes a number of priority habitats and species for the Highlands region including the following habitats and their related species which are present within the Site: upland and moorland, peatland and wetland, woodland and forest, and freshwater.

Terrestrial Habitats

- 4.4.17 The Skye and Lochalsh Local BAP^{Error! Bookmark not defined.} identifies the land cover across Sections 0 to 4 as generally including heather moorland with areas of blanket bog, grassland, coniferous and broadleaved woodland, with some montane habitats also present on the mainland.
- 4.4.18 The Carbon and Peatland Map 2016 was consulted to determine likely peatland classes present. The map is a predictive tool that provides an indication of the likely presence of peat at a coarse scale. The Carbon and Peatland map has been developed as “a high-level planning tool to promote consistency and clarity in the preparation of spatial frameworks by planning authorities”¹¹. It identifies areas of “nationally important carbon-rich soils, deep peat and priority peatland habitat”¹² as Class 1 and Class 2 peatlands. Class 1 peatlands are also “likely to be of high conservation value” and Class 2 “of potentially high conservation value and restoration potential”.
- 4.4.19 Areas of Class 1 and Class 2 peatland within the study area are presented on **Figures V2-4.2: Carbon and Peatland Map 2016** and shows the following:
- Section 0: contains areas of Class 1 peatland, at Beinn na Mointich and nearly continuously from south of Creag Dhubh to the southern extent of the Section, and one small area of Class 2 peatland, east of Upper Feorlig;
 - Section 1: contains areas of Class 1 peatland throughout the majority of the route;

⁸ Highland Nature, Biodiversity Action Plan 2021-2026. Available at: <https://www.highlandenvironmentforum.info/> [Accessed June 2022].

⁹ Skye and Lochalsh BAP (2003) <https://www.cbd.int/doc/nbsap/sbsap/gb-sbsap-scotland-skye-lochalsh-en.pdf>

¹⁰ <https://www.slef.org.uk/>

¹¹ <https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/soils/carbon-and-peatland-2016-map>

¹² Priority peatland habitat is land covered by peat-forming vegetation or vegetation associated with peat formation.

- Section 2: contains areas of Class 1 peatland around Sligachan and in the area from Luib to Strollamus. There is also a relatively small area of Class 2 peatland located at the head of Loch Ainort, with a larger area of Class 2 peatland from south of Strollamus to Broadford Substation. The majority and remainder of Section 2 is predominately comprised of Class 3 Soils (i.e., soil description = predominantly peaty soil with some peat soil and vegetation description = peatland with some heath);
- Section 3: contains areas of Class 1 and Class 2 peatland. Where the route follows the line of the existing OHL south of Breakish, it passes through a relatively large area of Class 1 peatland, for approximately 5.1 km. South of Broadford, again where Section 3 follows the existing OHL, the route passes through an area of Class 2 peatland for approximately 0.95 km. Directly south of Mudalach woodland, Section 3 crosses a further area of Class 1 peatland for approximately 1.5 km;
- Section 4: contains extensive areas of Class 2 peatland throughout much of the route, with a few small areas of Class 1 peatland within 1 km;
- Section 5: contains areas of Class 2 peatland from nearly the start of the Section, where it continues from Section 4, until the route passes into woodland, west of Tomdoun, with a small area of Class 1 peatland directly adjacent to this woodland; and
- Section 6: contains an area of Class 2 peatland from where the Section starts, south-east of Loch Lundie, to where the section passes into forestry land at Achadh-nan-darach. With one small area of Class 1 peatland also present among the Class 2 peatland.

4.4.20 As the Carbon and Peatland Map is a high-level tool, detailed habitat and peat depth surveys have been carried out across the Site to inform siting, design and mitigation and the detailed assessment on peatland and associated habitats. The results of the habitat surveys are discussed below, and the results of the peat depth surveys are presented and discussed in **Volume 2, Chapter 7: Geology and Soils Environment**, and associated appendices, specifically **Appendix V2-7.2: Peat Landslide Hazard and Risk Assessment (PLHRA)** and **Appendix V2-7.3: Peat Management Plan**.

Aquatic Habitats

4.4.21 There are numerous watercourses and water bodies within the study area as detailed in **Volume 2, Chapter 6: Water Environment**. Several of the larger watercourses to which the study area is connected have been classified by SEPA as part of their Water Framework Directive (WFD) classification¹³ and include the following:

- Section 0: two watercourses, Bay River, and Caroy River, have been classified by SEPA and were assessed in 2014 as having Good overall condition, High access for fish migration, High freedom from invasive species and Good water quality;
- Section 1: four watercourses, River Ose, River Snizort, Glenmore River and Varragill River, were assessed in 2014 as having Good overall condition, High access for fish migration, High freedom from invasive species and Good water quality;
- Section 2: two watercourses, River Sligachan and Abhainn Ceann Loch Ainort, were assessed in 2014 as having High overall condition, with High access for fish migration and High water quality;
- Section 3: two watercourses, Broadford River and Abhainn Lusa, were assessed in 2014 as having High access for fish migration and High water quality, with a Good overall condition for the Broadford River and High overall condition for Abhainn Lusa;
- Section 4: five watercourses, Glenmore River, Abhainn a Ghlinne Bhig, River Arnisdale, Lochourn River, and Loch Quoich have been classified by SEPA, with the majority assessed in 2014 as having Good overall condition, with High access for fish migration, High freedom for invasive species and Good water quality. The exception was Lochourn River, which is designated as a heavily modified water body on

¹³ www.sepa.org.uk/data-visualisation/water-environment-hub/ [Accessed February 2022]

account of physical alterations, and was assessed in 2014 as having Bad overall condition, although High access for fish migration, High freedom from invasive species and Good water quality;

- Section 5: one watercourse, Aldernaig Burn (River Ness catchment), has been classified by SEPA and is designated as a heavily modified water body on account of physical alterations, and was assessed in 2014 as having Moderate Ecological condition. Many of the smaller watercourses within Section 5 feed into the River Garry or directly into Loch Garry; and
- Section 6: the Invervigar Burn (River Ness catchment), is the largest tributary of the River Oich and was assessed in 2014 as having High overall condition, with High access for fish migration and High water quality.

Protected Species

4.4.22 Data from the National Biodiversity Network (NBN) Atlas Scotland¹⁴ obtained as part of the desk-study indicated that the following protected species (non-marine) have been recorded within 5 km of the Proposed Development within the last 15 years:

- badger (*Meles meles*) (Section 6);
- bats: common pipistrelle (*Pipistrellus pipistrellus*) (Sections 0, 2, 3, 5), soprano pipistrelle (*Pipistrellus pygmaeus*) (Sections 0, 3, 5, 6), brown long-eared (*Plecotus auritus*) (Sections 5 & 6) and Daubenton's bat (*Myotis daubentonii*) (Section 3);
- hares: brown hare (*Lepus europaeus*) (Section 0, 1, 3 & 6) and mountain hare (*Lepus timidus*) (Sections 5 & 6);
- Killarney fern (*Trichomanes speciosum*) (Section 4);
- otter (*Lutra lutra*) (all Sections);
- pine marten (*Martes martes*) (Sections 1, 2, 3, 4, 5 & 6);
- red squirrel (*Sciurus vulgaris*) (Sections 5 & 6). Also records of red squirrel on the Saving Scotland's Red Squirrel website¹⁵ in Section 5 at Tomdoun, along the northern shore of Loch Garry and at Invergarry, and in Section 6 at Inchnacardoch Forest; and
- reptiles: slow worm (*Anguis fragilis*) (Sections 3, 4, 5 & 6), adder (*Vipera berus*) (Section 3) and common lizard (*Zootoca vivipara*) (Section 0, 1, 3, 4, 5 & 6).

4.4.23 Surveys undertaken during Ground Investigation (GI) works for the Proposed Development as part of Ecological Clerk of Works (ECoW) duties between April 2021 and March 2022 recorded the following signs of species (detailed in **Appendix V2-4.4: Protected Species Survey Report**):

- badger: badger activity within Section 4 including six setts, five day-nests (i.e., above ground resting areas) and several latrines;
- otter: an otter couch in Section 3 near the headland at Rubhan a Caillich; six potential holts, six couches, and spraint within Section 4; and one otter holt within Section 5;
- pine marten: six potential pine marten dens and scat recorded in Section 4;
- reptiles: suitable habitat and hibernacula recorded throughout Sections 3, 4, 5 and 6; and
- water vole: potential burrows recorded in Section 4. No droppings or other signs recorded (water vole droppings are the only field sign that can be used reliably on their own to determine species presence¹⁶).

4.4.24 In addition, the following records are relevant for Section 3:

¹⁴ <https://scotland.nbnatlas.org> [Accessed March 2022].

¹⁵ <https://scottishsquirrels.org.uk/squirrel-sightings/> [Accessed June 2022]

¹⁶ Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds. Fiona Mathews and Paul Chanin. The Mammal Society, London.

- hares: mountain hare noted as being present in small numbers in the FLS LMP⁶;
- otter:
 - otter is a qualifying feature of the Kinloch and Kyleakin Hills SAC and SSSI as the site hosts a nationally recognised otter population which is representative of the Scottish west coast and encompasses a large number of holts used for shelter and breeding, intertidal and inland feeding areas, and freshwater pools⁵;
 - protected species surveys for the Proposed Development in 2018¹⁷ recorded seven holts, one couch, one holt/couch and up to sixteen sprints/sprouting sites around the existing OHL crossing location at Kyle Rhea and northwards around the coastline. All signs were recorded around the Rubha Buidhe headland, with the majority present along the coast;
 - a survey for the Quoich to Broadford Step Bolt Replacement Project¹⁸ recorded a minimum of 24 holts and 54 couches/hovers, many of which were in proximity to existing OHL towers. Evidence of otter was predominantly recorded along the coast; and
- reptiles: all three species mentioned as being present within the FLS LMP⁶.

4.4.25 No specific records of water vole were identified during the desk study. However, the Skye and Lochalsh LBAP notes that water vole is present in upland streams, bogs and marshy areas in Lochalsh⁹.

Fish and Freshwater Pearl Mussel

4.4.26 The desk study returned records of the following notable fish species within 5 km of the Proposed Development on NBN Atlas Scotland¹⁴. No records of freshwater pearl mussel (FWPM) (*Margaritifera margaritifera*) were found:

- European eel (*Anguilla anguilla*) (Section 3);
- brown/sea trout (*Salmo trutta*) (Section 1, 2, 3); and
- Atlantic salmon (*Salmo salar*) (Section 1).

4.4.27 During ECoW surveys for Proposed Development GI works, proposed access track watercourse crossings were assessed for their suitability for fish spawning and for FWPM. Several watercourses were recorded as providing suitable juvenile salmonid fry and parr in Sections 3, 4 and 5. However, potential suitable fish spawning habitat was only recorded upstream and downstream of two existing access track upgrade crossing locations on Allt a' Choire Uidhir (NG 92413 09076) and Allt a' Choire Reidh in Section 4. No FWPM, or notable habitat for the species, was recorded (relevant watercourse crossing notes from the ECoW survey are included in **Appendix V2-4.4: Protected Species Survey Report**).

4.4.28 Atlantic salmon, brown trout, European eel and Arctic charr (*Salvelinus alpinus*) are noted as local species by the Skye and Lochalsh Rivers Trust¹⁹. The Skye and Lochalsh Environment Forum website²⁰ also notes that there may be FWPM in rivers on Skye.

4.4.29 Juvenile fish surveys carried out on behalf of the Skye and Wester Ross Fisheries Trust in 2019²¹ included a number of rivers within the study area. In Section 1, surveys on the Varagill River caught one juvenile salmon, plus 14 trout and one eel. Surveys on the River Snizort (largest and most productive salmon river on the Isle of Skye) recorded juvenile salmon at seven of eight sites, including 11 km upstream from the sea. No juvenile

¹⁷ SSEN (2018). Results of Protected Species Surveys (Otter) through the Kyleakin and Kinloch Hills Special Area of Conservation and Site of Special Scientific Interest. Fort Augustus – Skye Project. October 2018.

¹⁸ Heritage Environmental Limited (HEL) (February 2018). Quoich to Broadford (QB1) 132 kV OHL Step Bolt Replacement Project. Otter Survey: Towers 54 – 87. A Report to Cnoclee Limited.

¹⁹ <https://slrt.org.uk/> [Accessed April 2022].

²⁰ <https://www.slef.org.uk/> [Accessed April 2022].

²¹ Skye and Wester Ross Fisheries Trust (2020) Review September 2020. Available at: <https://www.wrft.org.uk/habitats/home.cfm> [Accessed May 2022].

salmon were recorded on the River Ose, although it was noted that conditions were not optimum and that it has potential to be one of the more productive salmon rivers on the west of Skye. In Section 2, surveys on the River Sligachan recorded salmon fry and parr in low to moderate densities. Modest numbers of salmon fry and parr, as well as trout, European eel and other common fish species were recorded on the Broadford River (Section 3).

Invasive Non-Native Species (INNS)

4.4.30 INNS are a threat to biodiversity and there is a legal obligation to control their spread. Records of the following INNS have been identified during the desk-study within 5 km of the Proposed Development¹⁴:

- American mink (*Neovison vison*) (Sections 0, 2, 3, 4, 5, 6);
- American skunk-cabbage (*Lysichiton americanus*) (Section 3);
- grey squirrel (*Sciurus carolinensis*) (Sections 3, 5);
- Himalayan balsam (*Impatiens glandulifera*) (Sections 1, 2, 3, 5, 6);
- Japanese knotweed (*Fallopia japonica*) (Sections 1, 2, 3, 4); and
- rhododendron (*Rhododendron ponticum*) (Sections 1, 3, 4, 5, 6).

Deer

4.4.31 The results of the 2016 Deer Distribution Survey²² and a search within 5 km on the NBN Atlas Scotland site¹⁴ indicate potential presence of the following species:

- red deer (*Cervus elaphus*) (all sections);
- roe deer (*Capreolus capreolus*) (all sections);
- sika deer (*Cervus nippon*) (Sections 2, 3, 4, 5, 6); and
- fallow deer (*Dama dama*) (Sections 5 and 6).

4.4.32 The latest Deer Working Group report²³ includes approximate densities of red deer across 53 deer management areas. According to the report, red deer densities in the vicinity of Sections 2 and 3 are expected to be approximately less than 6 deer per km². No specific deer density information for the vicinity of Sections 0 or 1 were included in the report. The latest South Skye Deer Management Group Deer Control Plan²⁴ suggests an overall deer density of 2 deer/km² within their management boundary.

4.4.33 Within Section 3, the FLS LMP⁶^{Error! Bookmark not defined.} notes that red, roe and sika deer are present within the K inloch Hills and Broadford area and deer management is fundamental to the land and habitat management on the estate to reduce browsing impacts on designated features and planted trees. Based on culling records and sightings the population is now estimated at around 5 deer/km², which is in line with recommendations from Site Condition Monitoring in 2009 by NatureScot.

4.4.34 Red deer densities in the vicinity of Sections 4 and 5 were expected to be 11.1 - 15 deer per km² in 2019²³. The latest Glenelg Deer Management Group (DMG) Deer Management Plan²⁵ notes that the main deer species present in the upland habitat (which makes up the majority habitat in the DMG area) are red deer, with roe deer occupying woodland margins and lower elevations, and a very small local population of sika deer confined to woodland areas. The plan²⁵ suggests a broad population density of 14 deer per km² within the management boundary.

²² British Deer Society (2016). Deer distribution survey results [Online]. Available at: <https://bds.org.uk/science-research/deer-surveys/deer-distribution-survey/> (Accessed April 2022).

²³ Deer Working Group (2020). The management of wild deer in Scotland: Deer Working Group report. Scottish Government.

²⁴ South Skye Deer Management Group (2019). Deer Control Plan.

²⁵ Glenelg Deer Management Group (2016). Glenelg Deer Management Plan 2016-2021.

4.4.35 Red deer densities in the vicinity of Section 6 were not estimated in the Deer Working Group report²³ however, in surrounding deer management group areas, red deer densities were expected to vary between 8.1 - 15 deer per km² in 2019.

4.4.36 In terms of habitat suitability within the Site, areas of conifer plantation and native woodland present within all Sections could provide shelter for deer species, with open areas of grassland and upland habitats throughout providing grazing and commuting opportunities.

Field Surveys

Terrestrial Habitats - Phase 1/NVC

4.4.37 The habitats field survey area was established to include sufficient buffers to account for potential indirect effects and the presence of potential GWDTes, in line with SEPA guidance²⁶.

4.4.38 The study area for habitats was defined as a combined and amalgamated 280 m corridor (i.e., 140 m buffer) around the alignment centreline of the new OHL/underground cable routes²⁷, a 150 m corridor (i.e., 75 m buffer) around proposed new access tracks²⁸ (permanent and temporary), and a 100 m corridor (i.e., 50 m buffer) around existing tracks that would require significant upgrading; this included lengths of track in Section 1 (approximately 380 m), Section 2 (approximately 640 m) and Section 4 (approximately 14.4 km). The LoDs associated with the preceding described infrastructure is also entirely covered by the habitats study area. Other existing tracks identified for upgrading are all in relatively good condition with only minor carriageway or verge widening and/or re-surfacing works required, and therefore did not form part of the habitats study area for EIA Report assessment purposes.

4.4.39 Appendix **V2-4.3: NVC and Habitats Survey Report** includes the detailed descriptions of habitats from the surveys, including the condition of habitats and a breakdown of NVC communities within each Section and the overall study area. The habitats are shown on **Figures V2-4.3: NVC Survey Area and Results**²⁹ which display all data collected during surveys. The habitat extents provided and discussed below relate only to those within the study area (boundary line shown on **Figures V2-4.3: NVC Survey Area and Results**) as these form the baseline conditions and the basis for the assessment of potential effects and habitat loss, discussed further below. Furthermore, detailed description of the NVC communities that form part of the qualifying habitats and Notified Natural Features of the Kinloch and Kyleakin Hills SAC/SSSI is provided within **Appendix V2.4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal** and the associated **Figures 4a-w**. The National Vegetation Classification (NVC) data collected across the study area were cross-referenced to the Phase 1 Habitat Survey Classification³⁰ to allow a broader characterisation of habitats. The extent of Phase 1 habitat types within the study area was calculated using the Site-specific correlation of NVC communities to their respective Phase 1 types, and their extents mapped within ArcGIS software, including within mosaic areas. In total, 46 NVC communities, 12 intermediates, and 26 non-NVC communities were present within the study area, corresponding to 39 Phase 1 habitats.

²⁶ SEPA. (2017). Land Use Planning System SEPA Guidance Note 31: *Guidance on Assessing the Impacts of Windfarm Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems*. Version 3.

²⁷ i.e., this generally constitutes a 100 m buffer surrounding the typical 80 m LoD, although in some areas the LoD has been widened or narrowed in response to local conditions to either protect certain features or provide flexibility to allow micro-siting to avoid potentially sensitive features, as described within **Volume 1, Chapter 3: Project Description**.

²⁸ i.e., this generally constitutes a 50 m buffer around the respective 50m LoD, although in some areas the LoD has been widened or narrowed in response to local conditions to either protect certain features or provide flexibility to allow micro-siting to avoid potentially sensitive features, as described within **Volume 1, Chapter 3: Project Description**.

²⁹ The Phase 1 symbology shading in **Figure V2-4.3: NVC Survey Area and Results** has been used to broadly characterise stands of vegetation based on the dominant NVC community within a particular area, however the NVC data is provided in the labelling and should be referred to if greater detail is required on a particular area.

³⁰ Joint Nature Conservancy Council. (2010). Handbook for phase 1 habitat survey – a technique for environmental audit. JNCC, Peterborough.

4.4.40 **Diagram V2-4.1: Predominant Phase 1 Habitat Types Recorded within the Study Area Across All Sections** summarises the Phase 1 habitats that were recorded in the study area. Much of the study area is within upland habitats, with wet dwarf shrub heath, blanket bog and wet modified bog making up 61 % of the study area between them. Habitats that contribute to the study area but make up less than 1 % are included in **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development.**

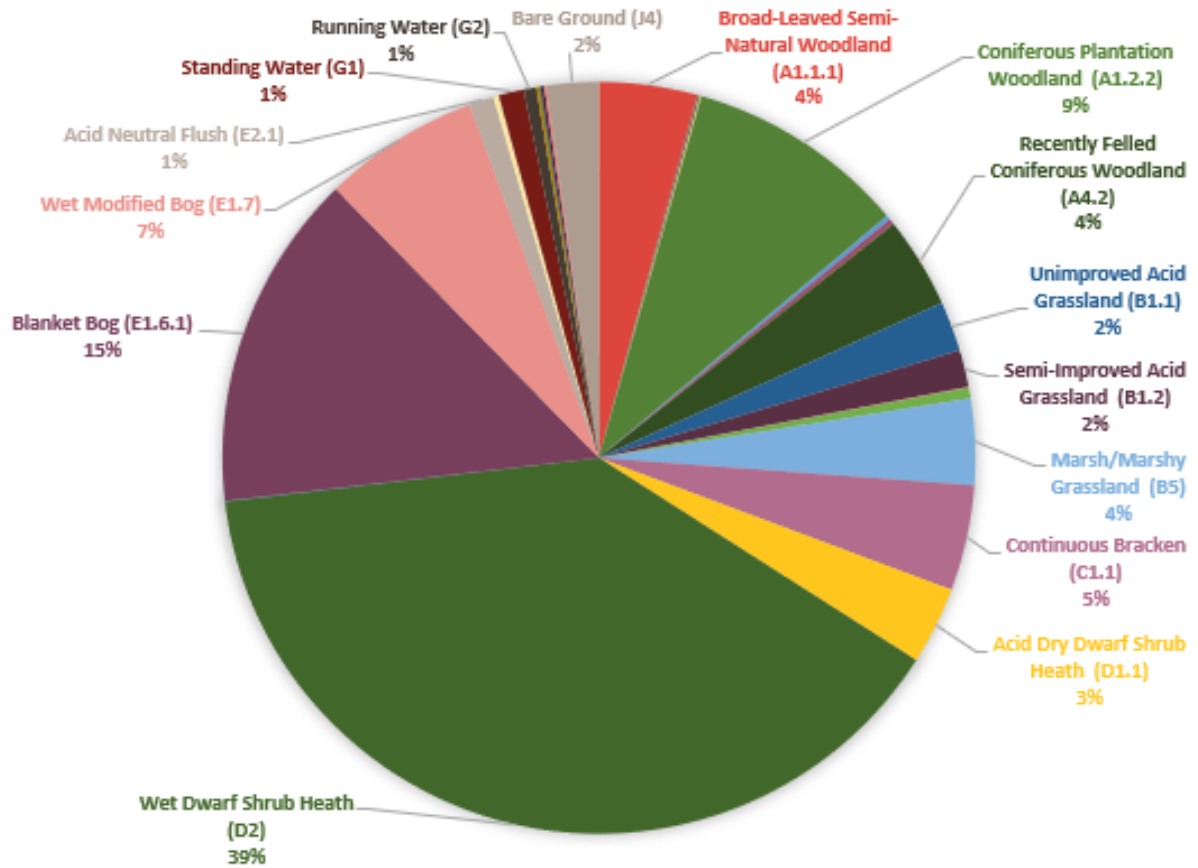


Diagram V2-4.1: Predominant Phase 1 Habitat Types Recorded within the Study Area Across All Sections

Bryophytes and Lichens

4.4.41 Specialist bryophyte and lichen surveys carried out within the respective survey area in the Kinloch and Kyleakin Hills SAC and SSSI identified numerous important habitats for the species, particularly in woodland, scrub and on steep north to east facing rocky habitats. This included seven locations where Nationally Rare or Nationally Scarce species were present including mosses, *Campylopus setifolius*, *Dicranodontium uncinatum*, *Campylopus shawii*, and the lichen, *Nevesia sampaiana*. In total, 14 notable mosses, 21 liverworts, and 21 lichen species were recorded during the survey, many of which are oceanic species of interest. Two notable oceanic ferns, hay-scented buckler-fern (*Dryopteris aemula*) and Wilson's filmy-fern (*Hymenophyllum wilsonii*) were also recorded.

4.4.42 Native woodland and scrub in the survey area, including small patches of eared willow (*Salix aurita*) scrub, is good for epiphytic bryophytes and lichens, and for oceanic bryophytes on rocks, banks and logs beneath the tree canopy. The richness of woodland reflects the high humidity caused by a combination of shade/shelter beneath the tree canopy and the location in an area with a wet and relatively equable (i.e., oceanic) climate. The habitats at this site are therefore regarded as examples of temperate rainforest.

- 4.4.43 Steep rock outcrops on north to east facing slopes are generally at least moderately rich in western bryophyte species. The northerly to easterly slope aspect leads to favourably shaded and sheltered conditions and an associated high level of humidity. This is reflected in the good representation of oceanic bryophytes, which overlap with species recorded in woodlands in this area.
- 4.4.44 Some areas of wet flushes and very wet bog habitats, particularly bog pools, were also identified for their importance to bryophyte assemblages.
- 4.4.45 Full details of these surveys and results are provided in **Appendix V2-4.6: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Report** and target note locations are provided on **Figure V2-4.5: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Area and Results**.

GWDTEs

- 4.4.46 The NVC results were referenced against SEPA guidance²⁶ to identify those habitats which may be classified, depending on the hydrogeological setting, as being potentially groundwater dependent. Potential GWDTE NVC communities recorded within the survey area are identified in **Appendix V2-4.3: NVC and Habitats Survey Report**. Because designation as a potential GWDTE is related to groundwater dependency and not nature conservation value, GWDTE status has not been used as criteria to determine a habitat's nature conservation value and similarly does not factor in the identification of IEFs within ecological impact assessments. There is however a requirement to consider GWDTEs and the data gathered during the NVC surveys has been used to inform this assessment in **Volume 2, Chapter 6: Water Environment** and **Appendix V2-6.4: Groundwater Dependent Terrestrial Ecosystem (GWDTE) Assessment**.

Protected Species

- 4.4.47 The results of the protected species surveys within the study area are included in **Table V2-4.3: Summary of Protected Species Survey Results by Section**, with full descriptions provided in **Appendix V2-4.4: Protected Species Survey Report** and shown on **Figure V2-4.4: Protected Species Survey Area and Results** and **Figure V2-4.4C: Confidential Protected Species Survey Results**.

Table V2-4.3: Summary of Protected Species Survey Results by Section

Species	Section 0	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
Badger	Not present on Skye.	Not present on Skye.	Not present on Skye.	Not present on Skye.	Two setts, with dung pits, latrines, feeding signs and prints recorded within the Section.	One sett that appeared partially dug. Dung pits and badger hair were also recorded within the Section.	No signs or protected features recorded.
Bats	Three stands of trees were assessed as having Low and Low to Moderate potential for roosting bats. Three structures were also identified, with a shed and derelict caravan both classified as having Low to Moderate potential, and some electricity substation buildings as having Moderate potential for roosting bats.	Two areas of conifer plantation forest were assessed as having low potential for features to support roosting bats.	One structure, a disused small stone bridge was recorded as having moderate potential for roosting bats within numerous gaps and cracks present in the stonework; one structure (a water treatment works) and six trees were recorded as having low potential for roosting bats.	A cluster of birch trees within an area of broadleaved woodland south of Mudalach and next to Allt-an Reidh Mhòir, were identified as offering moderate (four records) and high (one record) potential suitability for roosting bats.	Two structures at Balvraid Farm were assessed as having moderate potential for roosting bats. A building at Creag Mhor was assessed as having low suitability for roosting bats. Some mature trees within an area of woodland on enclosed private land near Kinloch Hourm were assessed as having moderate potential for roosting bats; however, most woodland in Section 4 offered Low suitability for roosting.	Four buildings were assessed as high potential for roosting bats. A farm building at Munerigie and a nearby house at Leacan Dubha were assessed to have moderate potential. Between Tomdoun and the eastern extent of Section 5, trees with potential roost features were numerous. West of Tomdoun, stands of trees were generally found to offer low or negligible potential, although some single trees within these were recorded as having moderate or high potential.	The groups of trees along Section 6, including conifer plantation and areas of young, small or spindly trees, were mainly classified as having low or negligible potential for roosting bats. One Scots pine was recorded as having moderate suitability for roosting. No buildings or structures were recorded as having roosting suitability.
Otter	One potential couch was recorded near Trumpan. Spraints were present along a number of watercourses and waterbodies, including Halistra Loch and tributaries, Allt Mainnir nan Gobhar, Allt nam	One potential couch was recorded. Spraint was recorded on Rageary Burn, Glenmore River, the Lòn na Muice watercourse, and on the shore of Loch Connan.	Spraints were present along several watercourses including Allt Dubh, River Sligachan, Abhuinn Torra-mhichaig, Allt Mhic Mhoiren, Allt na Luibe, and the shore of Loch Ainort. An otter was sighted on the	Seven potential couches and six potential holts. Spraints were recorded along many of the watercourses, with feeding signs also recorded along the coast.	Spraints were recorded on watercourses throughout Section 4. No protected features were recorded.	Spraints were recorded at a number of sites, with the majority on the banks of Loch Garry. No protected features were recorded.	Six locations with spraint were recorded, with five of these between Creag a' Chlamhain and Doire Daraich midway along the section on upper unnamed tributaries of the Invervigar Burn.

Species	Section 0	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
	Maighdean, Allt Beinn na Boineide, Allt a' Ghamhna, and the Caroy River.		shore at Loch Ainort, where it was noted that the shoreline has suitable habitat for otter resting sites (couches and holts) amongst boulders. No protected features were recorded.				
Pine marten	Six potential scats were recorded in Section 0, mostly concentrated east of Feorlig. No protected features were recorded.	No signs or protected features were recorded.	Two potential scats were recorded in Cnoc na Cachaille woodland along forestry tracks. No protected features were recorded.	Nine potential scats, with three within woodland near Allt Lochain na Sàile, and six between the Proposed Development and the coast near Rubha na Caillich. A pine marten box was recorded in woodland north of Kylerhea, although no signs of use were identified.	No signs or protected features were recorded.	One potential scat was recorded near a watercourse towards the east end of Section 5, south of Loch Lundie. No protected features were recorded.	Two potential scats were recorded towards the northern part of the Section, where a potential den was also identified.
Red squirrel	Not present on Skye.	Not present on Skye.	Not present on Skye.	Not present on Skye.	No signs or protected features were recorded.	Feeding signs were recorded in areas of plantation and clearfell between Ardochy house and the eastern extent of Munerigie wood. No protected features were recorded.	Feeding signs were recorded in conifer plantation near Auchteraw. No protected features were recorded.
Reptiles	Potential hibernacula and refuges were recorded throughout Section 0 in stone walls, rocky outcrops, stone structures and boulder piles.	Potential hibernacula and refuges were recorded at two locations near Glen Vic Askill in stone wall structures.	Potential hibernacula and refuges were recorded in dry stone walls, sheepfolds and other building remains present.	Potential hibernacula and refuges were recorded in dry stone walls and rock piles.	Eleven sightings of common lizard, several of these around Balvraid. Three stone structures were recorded as potential hibernacula and refuges.	Two sightings of common lizard. Potential reptile hibernacula were recorded within stone structures including dry stone wall and sheepfold remains.	One sighting of common lizard was recorded, near Doire Daraich.

Fish

- 4.4.48 As detailed in **Appendix V2-4.2: Assessment Methodology**, fish habitat surveys were undertaken on watercourses where there was higher risk for the Proposed Development to have an impact on salmonid populations and European eel due to the proposed underground cable route within Sections 2 and 6.
- 4.4.49 Nine of the ten surveyed streams within Section 2 were recorded as potentially accessible to sea trout and salmon, with the exception being an unnamed stream which appeared naturally inaccessible. Significant areas of spawning habitat suitable for salmon and trout were recorded at the proposed crossing locations on the River Sligachan and on the Abhainn Ceann Loch Ainort, with small areas of suitable spawning substrate recorded close to three other crossing locations along the underground cable route. Abhainn Torra-mhichaig which flows alongside the proposed cable route holds good quality juvenile salmonid habitat, including small amounts of spawning habitat, and has fragile eroding banks in some places. Detailed results and figures are provided in **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**.
- 4.4.50 No spawning habitat was found at any of the three crossing point locations surveyed in Section 6 on the Invervigar Burn, although small areas of spawning habitat were recorded throughout the burn. The banks at two crossing points were recorded as unstable and prone to erosion. Detailed results and figures are provided in **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**.

Other Species

- 4.4.51 Signs of other notable species or INNS recorded during field surveys included:
- Section 0: Several mammal holes were recorded in the survey area. However, there were no field signs at these features and their use by a protected species was not confirmed. Such features may be used by other mammal species such as red fox (*Vulpes vulpes*) or rabbit (*Oryctolagus cuniculus*) which are likely to be present in the area.
 - Section 2: Two mammal holes were recorded in the survey area. These were of a size and location that was determined to be suitable for otter, however there were no field signs at these features and their use by a protected species was not confirmed.
 - Section 3: One American mink scat was recorded on a rock at the coast near Sròn an Tairbh. Two palmate newt sightings (local priority species in the Skye and Lochalsh BAP⁹).
 - Section 4: Three records of mammal holes for which no species-specific signs could be seen were identified. Two of these records were of a size that could be used by badger.
 - Section 5: Four records of mammal holes for which no species-specific signs could be seen were recorded. Two of these records were in the vicinity of where signs of badger were also noted, and the holes were noted to be of a size that could support badger. The other two locations were further west, with smooth-sided tunnels but no protected species signs.
 - Section 1 and Section 6: No other signs or sightings of notable species or INNS were recorded during field surveys.

Dismantling of the Existing OHL

- 4.4.52 Following commissioning of the Proposed Development, the existing 132 kV OHL would be dismantled and removed.
- 4.4.53 The baseline conditions for habitats and protected species in this area are similar to those outlined above, as the Proposed Development largely follows the line of the existing OHL, with the large majority of the existing

OHL falling within the respective field survey areas and study area for the Proposed Development (as shown on **Figures V2-4.3: NVC Survey Area and Results** and **Figures V2-4.4: Protected Species Survey Area and Results**).

- 4.4.54 Field surveys indicate habitats present along the existing OHL largely comprise wet heath, blanket bog, wet modified bog and woodland (with many smaller patches of various other habitats in line with those detailed in **Appendix V2-4.3: NVC and Habitats Survey Report**). In areas where the existing OHL is not covered by these NVC surveys, it can be inferred from the proximity of nearby habitats baseline data and aerial imagery that the habitats are generally similar to those reported in **Appendix V2-4.3: NVC and Habitats Survey Report** and are likely of similar composition. With respect to protected species, desk-based studies and field survey evidence indicates the potential for presence of badger, bats, otter, pine marten, red squirrel and reptiles, including otter holts and couches, badger setts and potential pine marten dens (**Figure V2-4.4C: Confidential Protected Species Survey Results**). Distances between known protected features and the existing OHL are included in the Confidential Annex of **Appendix V2-4.4: Protected Species Survey Report**.
- 4.4.55 Surveys undertaken by Heritage Environmental Limited (HEL) in 2018 for the Quoich to Broadford Step Bolt Replacement Project¹⁸ included an otter survey along the route of the existing OHL within the Kinloch and Kyleakin Hills SAC and SSSI. Surveys were undertaken in suitable habitat up to 250 m from the existing OHL. The survey recorded a minimum of 24 holts and 54 couches/hovers within the respective survey area, many of which were in proximity to existing towers. Evidence of otter was predominantly recorded along the coast, with little evidence found in suitable habitat, e.g., along watercourses and in boulder piles, beyond 50 m from the shore.

The Do-nothing Scenario (or Future Baseline)

- 4.4.56 In the absence of the Proposed Development, it is likely that the Important Ecological Features (IEFs) would generally remain as they are at present, although numbers and distribution of species may fluctuate naturally. Vegetation, woodland regeneration, and habitat composition, extents and quality in the study area may fluctuate in the long-term in line with increasing or decreasing livestock grazing and deer densities (livestock grazing not present in the Kinloch and Kyleakin Hills SAC/SSSI). Areas of commercial forestry present within all Sections would continue to mature until a time when they would be subject to a future felling plan, which may create temporary localised habitat changes until replanting and canopy closure. This includes Mullach Glen Ullinish, in the southeast of Section 0, forestry at Beinn a' Chait, Mugeary and north of Sligachan within Section 1, Cnoc na Cachaille in the east of Section 2, forest at Druim na Leitire in the west of Section 4, and commercial forestry throughout much of Sections 5 and 6.
- 4.4.57 Within Section 3, management detailed in the FLS LMP⁶ includes reducing deer numbers in and around Kinloch and Kyleakin Hills SAC and SSSI and the FLS ownership areas to encourage regeneration of the oak woodland, which would also benefit the condition of mixed woodland on base rich soils, blanket bog, wet heath and dry heath. If this management continued, there may therefore be improvements in the condition of woodland, the associated lichen and bryophyte assemblage, bog and heath features in this area in the future. Further management detailed in the FLS LMP⁶ also includes the continued removal of secondary regeneration non-native conifers within the SAC and SSSI area, and the eradication of rhododendron and other invasive non-native plant species locally. As with other sections, ongoing management of areas of commercial forestry may create temporary localised habitat changes due to felling and replanting plans; however, some of the forestry in proximity to Section 3 has also been identified in the FLS LMP 2019-2029⁶ as candidate areas for peatland restoration after felling.
- 4.4.58 From 2001 – 2008 FLS received funding for woodland expansion within the Kinloch & Kyleakin Hills SAC and SSSI as part of a Scottish Forestry Alliance (SFA) Kinloch & Kyleakin Hills Restoration Project to establish 486 ha of new native woodland for carbon storage. The new woodland was to be realised through a combination of planting proposals and natural regeneration proposals in regeneration zones around existing

stands of woodland. The success of the planting across these SFA areas has been variable, some areas are reported to have established well, and some areas have failed (due to factors such as poor ground conditions, the presence of deep peat, and deer damage). Revised proposals within the FLS LMP seek to convert some of the failed areas back to peatland habitat whereas others will be assessed and replanted, where appropriate. Surveys of natural regeneration by FLS in 2015 and 2016 around the Mudalach area recorded abundant regeneration of oak and aspen localised on steep ground where a seed source was present, and within the birchwoods the survey highlighted highly localised birch saplings at high densities. This survey noted that in general the threat from red and roe deer browsing impacts were low-medium throughout the area; however, some browsing from red deer was found on saplings on part of the palatable tree species. In 2020/2021 further FLS commissioned Herbivore Impact Assessment (HIA) and Ancient Semi-Natural Woodland (ASNW) condition assessment surveys of this area were undertaken³¹. The HIA of the Mudalach woodland ascertained the herbivore impact was 'Medium' for approximately 75% of plots; with around 5% assessed as 'Medium-High' (the remaining 20% of plots had a HIA rating of 'Low-Medium' or 'Low'). A summary of the ASNW condition survey noted threats to the native woodland here from expanding non-native conifer regeneration and invasive plant species. The ASNW survey also indicated that the browsing impacts vary across the site, some areas of open birchwood were assessed as having sparse regeneration and were considered to be approaching a threatened status for regeneration density; with patches of dense bracken also recorded developing in these areas. The browsing patterns on established young trees and saplings also suggested increasing impacts from deer.

- 4.4.59 The future baseline assumes, with continued planned management actions, the successful delivery of both the FLS LMP and the SFA woodland expansion scheme as detailed above.

4.5 Determining Important Ecological Features

Embedded Mitigation

- 4.5.1 The embedded mitigation is a combination of decisions taken during the design process to avoid or minimise the potential for likely significant effects, and the implementation of standard practice mitigation measures that are well-established and effective. These are discussed in greater detail below.

Iterative Design Process

- 4.5.2 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. 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. This process is detailed in **Volume 1, Chapter 4: The Routeing Process and Alternatives**.

Pre-construction and Construction

- 4.5.3 The assessment in this EIA Report 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 General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs) in agreement with statutory consultees, including SEPA and NatureScot. These are set out within **Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**. Similarly, the following relevant plans are included within this EIA Report: **Appendix V1-3.7: Outline Site Restoration Plan; Appendix V1-3.8: Dismantling Plan for the Existing OHL; Appendix V1-3.9: Outline Construction Environment Management Plan; and Appendix V2-7.3: Peat Management Plan**. The Proposed Development would be constructed in accordance with these plans.

³¹ Forestry and Land Scotland (2021). Forestry and Land Scotland, Inverness, Ross, and Skye Ancient Semi-Natural Woodland (ASNW) and Herbivore Impact Assessment (HIA) surveys 2020-21. Summary of Key Findings.

- 4.5.4 There would be a contractual management requirement for the successful Principal Contractor to fully implement a comprehensive and Site-specific Construction Environmental Management Plan (CEMP). This document would detail how the successful Principal Contractor would manage the works in accordance with all commitments and mitigation detailed in the EIA Report, the Applicant's GEMPs and SPPs, statutory consents and authorisations, and industry good practice and guidance, including pollution prevention guidance.
- 4.5.5 Any micro-siting of infrastructure within the defined LoD 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 or GWDTEs. Any micro-siting will also take consideration of any buffer distances on protected features identified, as detailed within the SPP.
- 4.5.6 To ensure all reasonable precautions are taken to avoid negative effects on habitats, protected species and aquatic interests, a team of suitably qualified ECoWs will be appointed prior to the commencement of construction to advise the Applicant and the Principal Contractor on all ecological matters. The ECoWs will be required to be present onsite during the construction phase and will carry out monitoring of works and briefings with regards to any ecological sensitivities on the Site to the relevant staff of the Principal Contractor and subcontractors.
- 4.5.7 A site reinstatement and 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 V1-3.7: Site Reinstatement and 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 are required to ensure successful reinstatement, including Site-specific soil and peat management measures, and the employment of specialist advisers (i.e., ECoWs).

Operational Period - Wayleave Maintenance

- 4.5.8 For the Proposed Development the typical operational corridor (OC) within areas of commercial conifer forestry for a 132 kV OHL is 80 m. Where the OC passes through areas of native woodland, the proposed operational corridor has been reduced to 60 m (i.e., 30 m either side of the OHL). This has been based on the likely height of the woodland at maturity. Within the Kinloch and Kyleakin Hills SAC and SSSI and in areas of ancient woodland, the operational corridor has been reduced further to 30 m (i.e., 15 m either side of the proposed OHL) (see **Volume 2, Chapter 9: Forestry**). Maintenance of an operational wayleave normally requires the complete felling of trees within the appropriate corridor. This standard approach is proposed for the Proposed Development but with the exception of the oak woodland qualifying feature within the Kinloch and Kyleakin Hills SAC and SSSI where the mitigation measure of crown reduction is proposed instead. During the operational period, trees within the OHL wayleave which are outwith the required electric safety clearance zone of 3.5 m from conductors will not be felled or lopped, i.e., trees can grow freely vertically or horizontally to within 3.5 m of a conductor before it becomes a safety issue. Should trees encroach within the 3.5 m safe electrical clearance zone of the conductors, then there will be a requirement for maintenance and the possible cutting back or crown reduction of some of the branches and trees. This mitigation measure will help to reduce impacts on woodland and bryophyte and lichen features as described within the assessment below.

Ecological Features, and Impacts on Ecological Features, Scoped Out

- 4.5.9 Through consideration of the baseline data collected and taking account of the proposed measures referred to under the heading of **Embedded Mitigation** above, several potential effects on IEFs can be scoped-out from further assessment within the Ecological Impact Assessment (EiA). This scoping exercise is based on the professional judgement of the EIA team and experience from other relevant projects, professional guidance and

standards. It is also relevant to consider mitigation that would be considered 'standard practice' in arriving at conclusions in respect of likely significant effects on qualifying features of a European site³². The following ecological features, and impacts on ecological features, have been scoped-out of this EclA.

Statutory Designated Sites

- 4.5.10 Effects on the qualifying features and/or Notified Natural Features of the Ascrib, Isay and Dunvegan SAC, Geary Ravine SSSI, Allt Grillan Gorge SSSI, Cuillins SSSI, Strath SAC and SSSI, Lochs Duich, Long and Alsh Reefs SAC and MPA, Inner Hebrides and the Minches SAC, Coille Mhor SAC and SSSI, Cosag Sallow Carr SSSI, Coille Mhialairidh SSSI, Glen Barisdale SSSI, Garry Falls SSSI, South Laggan Fen SSSI, Ness Woods SAC, Easter Ness Forest SSSI and Glen Tarff SSSI have been scoped out for assessment purposes. This is on the basis that it can be concluded that there would be no likely significant effects on these sites as a consequence of the construction and operation of the Proposed Development for the reasons given in **Table V2-4.2: Statutory Designated Sites** which are based on a review of connectivity between the Proposed Development and the designated site. The sites are shown on **Figure V2-4.1: Ecological Designated Sites and Ancient Woodland within 5 km**.
- 4.5.11 No works would occur within the Lochs Duich, Long and Alsh Reefs SAC and MPA. A new permanent track, adjacent to the designated sites, would be constructed to create access to the shore and allow plant and materials to be transported on landing craft via the water during construction and operation of the Proposed Development. A temporary pontoon would be used for the landing craft. Due to the low impact nature of these works and complying with best practice as discussed in **paragraphs 4.5.3 and 4.5.4**, which would avoid any pollution impacts, the Lochs Duich, Long and Alsh Reefs SAC and MPA have been scoped out from this EclA. It has been concluded that there is no likely significant effect on these sites and therefore no requirement for an appropriate assessment under the 2017 Habitats Regulations.
- 4.5.12 Potential connectivity between the Proposed Development and the Sligachan Peatlands SAC and SSSI has been identified at the northern extent of Section 2, where a new permanent access track is proposed on the eastern side of the A87 and crosses a minor first order tributary watercourse that feeds into the Allt Dubh and Sligachan Peatlands SAC and SSSI on the west of the A87. A small degree of underground cabling works would also be undertaken within the catchment of this same minor watercourse. All construction works would comply with standard mitigation and working practices, including effective silt and pollution prevention measures, which would be detailed in a CEMP³³ implemented by the Principal Contractor and monitored onsite by a suitably experienced ECoW. As a result, likely significant effects from the Proposed Development can be ruled out. The Sligachan Peatlands SAC and SSSI have therefore been scoped out from this EclA. It has been concluded that there is no likely significant effect and therefore no requirement for an appropriate assessment under the 2017 Habitats Regulations.
- 4.5.13 The Proposed Development spans the northern tip of the Mointeach nan Lochain Dubha SAC and SSSI in Section 3 which are designated for a number of wet upland habitats (detailed in **Table V2-4.2: Statutory Designated Sites**). Conductors would span over the designated site for approximately 120 m as shown on **Figure V2-4.1: (03) Ecological Designated Sites and Ancient Woodland within 5 km**, however no towers, access tracks or other on the ground infrastructure or any works are proposed within the designated sites. A new temporary access track is proposed approximately 12 m north of the designated site. The LoD for the new track has been restricted to the SAC boundary to ensure any micrositing required during construction would not encroach within the designated sites. This track would pass over two watercourses, Allt an Loin Bhain and a

³² SNH Guidance Note (Undated) The handling of mitigation in Habitats Regulations Appraisal – the People Over Wind CJEU judgement. <https://www.nature.scot/sites/default/files/2019-08/Guidance%20Note%20-%20The%20handling%20of%20mitigation%20in%20Habitats%20Regulations%20Appraisal%20-%20the%20People%20Over%20Wind%20CJEU%20judgement.pdf>

³³ The CEMP would reference the GEMPs and SPPs developed by the Applicant included in **Volume 1, Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**.

tributary, with both watercourse crossing locations sited downstream of the designated sites. The nearest proposed OHL tower is approximately 35 m away from the Mointeach nan Lochain Dubha SAC and SSSI.

- 4.5.14 The Applicant is committed to undertaking no works within the Mointeach nan Lochain Dubha SAC and SSSI boundaries. The Proposed Development is primarily downstream of the designated sites, with the Allt an Loin Bhain and its tributary also severing any potential pollution pathways from towers and construction activities to the east and west of the designated sites. Construction activities directly to the north of the designated sites are also downslope. Whilst mitigation is not required to avoid impacts on the designated sites, as detailed in **paragraph 4.5.12** above, all construction works would comply with a CEMP including effective silt and dust pollution prevention measures. As a result, a likely significant effect from the Proposed Development on the Mointeach nan Lochain Dubha SAC (and SSSI) can be ruled out. This SAC and SSSI have been scoped out from this EclA. It has been concluded that there is no likely significant effect and therefore no requirement for an appropriate assessment under the 2017 Habitats Regulations.
- 4.5.15 There is no interaction with, and therefore no impacts (direct or indirect) anticipated from the Proposed Development on the following two qualifying features of Kinloch and Kyleakin Hills SAC: Alpine and Subalpine Heaths, and Mixed Woodland on Base Rich Soils Associated with Rocky Slopes, or on the corresponding SSSI's Notified Natural Feature of Alpine Heath, due to the location of these habitats within the designated sites. These two qualifying features of Kinloch and Kyleakin Hills SAC and the Notified Natural Feature of the SSSI have been scoped out from this EclA. It has also been concluded that there is no likely significant effect and therefore no requirement for an appropriate assessment under the 2017 Habitats Regulations.

Terrestrial Habitats

- 4.5.16 Habitats that are considered to be of low conservation value and are very common habitat types locally and regionally are scoped out of the assessment. For all Sections, these include: conifer plantation, clear-fell, dense/continuous scrub, unimproved and semi-improved acid grassland, improved grassland, marshy grassland, bracken, tall ruderal and non-ruderal, intertidal boulders/rocks, other exposure – acid/ neutral and bare ground.
- 4.5.17 A number of other habitats recorded would be of local importance in the study area, due to their correspondence with Annex 1 habitats or Scottish Biodiversity List (SBL) Priority Habitats. However, as they occupy such small areas within the study area, they are species-poor examples, and/or direct or indirect effects on that habitat would not occur or would be negligible in magnitude, these are scoped out of the assessment. For all Sections, these include: broadleaved plantation woodland, acid/neutral flush, basic flush/spring, swamp, and standing water and running water. All habitat loss areas are detailed in **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development in Annex A**. The habitats and species that are the subject of assessment to identify predicted likely significant effects are listed in **Table V2-4.4: Summary of Important Ecological Features** below.
- 4.5.18 Construction activities may give rise to various pollution impacts including water, dust and chemicals. These impacts could in turn give rise to effects on IEF habitats such as blanket bog, wet heath, dry heath, broadleaved woodland and qualifying interests of the Kinloch and Kyleakin Hills SAC and SSSI. Construction works would comply with standard mitigation and working practices (refer to **paragraph 4.5.3**), including effective silt and dust pollution prevention measures which would be detailed in a CEMP developed by the Principal Contractor³³ and which would be implemented and managed onsite by a suitably experienced ECoW. As a result, pollution impacts have been scoped out for the IEF habitats and SSSI noted above. Furthermore, no likely significant effect on the SAC qualifying features is likely to arise from pollution impacts due to appropriate mitigation. Further detailed consideration to inform this conclusion is provided in **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**.

4.5.19 A habitat loss or modification impact could arise from peat failures or peat slides in peatland areas, triggered by construction activities associated with the Proposed Development. A Peat Landslide Hazard and Risk Assessment (PLHRA) has been prepared for the Proposed Development, see **Appendix V2-7.2 Peat Landslide Hazard and Risk Assessment**. The PLHRA concludes that overall, there is negligible to low risk of peat instability over the majority of the Proposed Development, including within the Kinloch and Kyleakin Hills SAC and SSSI, although some limited areas of medium and high risk have been identified (no high risk locations in Section 3). The PLHRA states with the implementation of standard mitigation measures in medium to high risk areas there is minimal peat slide risk. Given the conclusions of the PLHRA this potential impact is scoped out and is not discussed further in this assessment.

Aquatic Habitats and Species

4.5.20 Most of the Proposed Development would comprise OHL with the majority of associated towers positioned at least 20 m from watercourses. However, within Section 2 there would be an underground cable for approximately 15 km and Section 6 would include underground cable for the whole length of the Section (9 km). Within the underground cable parts of the route, the cable would cross watercourses by either trenching within the channel or by directional drilling beneath channels (methods detailed in **Volume 1, Chapter 3: Project Description**). The construction of watercourse crossings for temporary and permanent access tracks would be required throughout the Proposed Development. Information on permanent watercourse crossings is detailed within **Appendix V2-6.2: Schedule of Permanent Watercourse Crossings**.

4.5.21 Fish habitat surveys were carried out at proposed underground cable watercourse crossings within Sections 2 and 6 due to the larger nature of the watercourses in these sections, greater suitability for spawning salmon³⁴ and potential disturbance risks related to the installation of the underground cable which is proposed for these sections only (see also consultation response from Ness District Salmon Fisheries Board, **Volume 1, Chapter 6: Scope and Consultation**). The design of permanent and temporary access track crossings would comply with SEPA good practice guidance to minimise impacts on fish and their habitat to an acceptable level. No suitable fish spawning habitat or suitable habitat for FWPM was identified at proposed access crossing locations during GI ECoW works, and these watercourses tended to be less suitable, due to their size and substrate composition, which is confirmed by the crossing locations as detailed in **Appendix V2-6.2: Schedule of Permanent Watercourse Crossings**.

4.5.22 As detailed in **paragraphs 4.5.3 to 4.5.7**, embedded mitigation includes that construction work would comply with a CEMP developed by the Principal Contractor, which would be monitored by a suitably experienced ECoW. The CEMP would include good practice mitigation for effective silt and pollution prevention and undertaking works in accordance with SEPA best practice guidance³⁵. With this embedded mitigation in place, water pollution impacts and associated likely significant effects associated with the Proposed Development on watercourses and aquatic ecology, fish and FWPM are considered unlikely and therefore these pollution impacts are scoped out of further assessment.

4.5.23 **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report** details that many of the watercourses surveyed appear to be accessible for European eel and therefore the species is likely to be present within the Site. Eels do not breed within Scottish watercourses³⁶ and the species is widespread and mobile. Legislation for eel relates to the taking of eels. With embedded mitigation in place, no impacts from the Proposed Development are expected on the species, and eel is therefore scoped out of the assessment.

³⁴ SEPA, Fisheries Research Services, SNH (Nature Scot) Scottish Executive (Scottish Government) Managing River Habitat for Fisheries. A guide to best practice. https://www.sepa.org.uk/media/151323/managing_river_habitats_fisheries.pdf

³⁵ SEPA (2010). Engineering in the water environment: good practice guide – river crossings. Second edition.

³⁶ <https://www.nature.scot/plants-animals-and-fungi/fish/freshwater-fish/european-eel> [Accessed August 2022]

- 4.5.24 Although the Skye and Lochalsh local BAP states that FWPM may be present on Skye⁹, none have been identified during consultations, desk studies or field surveys. No suitable habitat for FWPM was identified at proposed access track watercourse crossings during GI ECoW surveys. In addition, detailed descriptions of the aquatic habitats, collated during fish habitat surveys, in areas where there may be potential for impacts from the underground cable sections of the Proposed Development, do not meet the habitat requirements for FWPM habitat, which require stable, fast flowing, clean water in coarse sand/fine gravel (**Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**). Due to the lack of suitable habitat at proposed access track crossing locations or underground cable crossing locations, direct impacts on FWPM would be unlikely (although pre-construction surveys would still be carried out in accordance with the SPP), and therefore impacts on FWPM would potentially be limited to indirect impacts through impacts on salmon (considered below), on which the larval stage of FWPM rely.
- 4.5.25 Potential effects upon fish (brown/sea trout and Atlantic salmon) may arise from direct construction impacts during trenching or drilling works in the vicinity of watercourses in the underground cable sections in Sections 2 and 6. The construction of permanent and temporary access track crossings throughout Sections 1 to 6 may also give rise to impacts. Indirect pollution impacts on fish are unlikely when embedded mitigation is considered and are therefore scoped out of further consideration within this assessment as described in **paragraph 4.5.22**.
- 4.5.26 Regarding underground cable impacts, trenched crossings would have a direct localised impact on fish habitat where the cable is laid, with potential for silt impacts in the immediate vicinity downstream. In a typical watercourse with widespread juvenile salmonid habitat, damage to a small area through trenching would not be expected to have significant impacts on fish populations, however trenching in important, sensitive, and potentially very limited habitat such as a good spawning area could have significant negative local impacts on fish populations. Directional drilling beneath the channel would not directly impact fish habitats, but potential indirect impacts include changes to fish behaviour and mechanical shock to eggs caused by vibrations. Changes in fish behaviour would be of particular concern during spawning if fish are deterred from using a particular spawning area. Depending on the amount of vibration caused by drilling, mechanical shock to eggs may also be a concern during the early stages of development, should crossing locations coincide with redds, as detailed in **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**. Further possible impacts of drilling or trenching could be destabilisation of riverbanks in areas where heavy machinery might be used on banks composed of unstable or loose material, and pollution or siltation from runoff from construction work close to and up-slope of watercourses, which could kill fish directly or degrade the habitat.
- 4.5.27 The construction of temporary or permanent access track watercourse crossings also have the potential to directly impact fish and their spawn due to the physical disturbance involved in construction (culvert installation for example). However, direct impacts due to access track crossings would generally be temporary and associated with minor watercourses which are less likely to be suitable for spawning salmonids. The following access track watercourse crossings are proposed in relation to Water Framework Directive watercourses within the study area (refer to **paragraph 4.4.21**):
- Section 0: No access tracks;
 - Section 1: One temporary access track crossing over each of the River Ose and River Snizort. Three temporary access crossings on tributaries of Glenmore River. Four temporary access crossings on tributaries of the Varagill River.
 - Section 2: Temporary access crossings of minor tributaries that ultimately connect to River Sligachan (or Loch Sligachan). No access crossings on Abhainn Ceann.
 - Section 3: Two permanent access crossings on minor tributaries of the River Sligachan. One permanent crossing on minor tributary of Abhainn Lusa.
 - Section 4: Temporary access crossing over Glenmore River, with one permanent access crossing on one minor tributary. Two temporary access crossings on Abhainn a Ghlinne with numerous permanent crossings on very minor tributaries within the catchment. Two permanent access crossings on Arnisdale.

No new crossings on Lochourn (some upgrades to existing tracks required). Permanent and temporary crossings on very minor tributaries of Loch Quoich.

- Section 5: One permanent access crossing on Aldernaig Burn, with one permanent and one temporary access crossing on tributaries.
- Section 6: Five temporary access crossings on minor tributaries to Invervigar Burn.

4.5.28 As detailed in **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**, the River Sligachan is a substantial river which supports salmon and trout and the cable crossing location is recommended to be treated as a sensitive site in relation to salmonid fish. Works could impact approximately 45 m² of sensitive spawning substrate for Atlantic salmon and brown trout on the River Sligachan and approximately 25 m² of sensitive spawning habitat, notably for trout, on the Abhainn Ceann Loch Ainort. In addition, small areas of spawning substrate were found near a further three proposed cable watercourse crossings (Allt na Beiste, Allt Mòr Doire Mhic-ùin and an unnamed watercourse at the head of Loch Ainort).

4.5.29 Under the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003, Section 23³⁷, it is an offence to: injure or destroy any smolt, parr, salmon fry or alevin; injure or disturb any salmon spawn or disturb any spawning bed or any bank or shallow in which the spawn of salmon may be; or obstruct or impede salmon in their passage to any such bed, bank or shallow during the annual close season (October to February inclusive).

4.5.30 To comply with legislation and ensure protection of fish populations and no deterioration of water quality, the CEMP would ensure effective silt and pollution prevention, as identified in the GEMP (**Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**). Other measures would include the following:

- Surveys in advance of construction to inform micro-siting of crossing locations (to be carried out at all watercourses where a likelihood of salmonid spawning habitat exists).
- Where practicable, subject to review by the Principal Contractor against detailed construction programming, it would be preferable for directional drilling at the crossings of the River Sligachan and Abhainn Ceann Loch Ainort to be carried out between March and late September to avoid impacts on spawning fish and eggs in the vulnerable early stages of development when they are susceptible to mechanical shock. Further consultation with SEPA and the relevant District Salmon Fisheries Board will be undertaken as part of this process and prior to works commencing. Instream work at these crossings (if required) should be done between early May and late October, and damage to or destabilisation of banks, should be avoided where possible.
- No vehicles would take access (if necessary) in or through the River Sligachan or Abhainn Ceann Loch Ainort between October and early May.
- Due to the presence of small areas of spawning habitats close to crossing points and downstream, care should be taken to avoid instream working or downstream impacts from machinery involved in directional drilling at crossings. In-stream working at the cable crossing point and downstream would be avoided where possible on Allt Mòr Doire Mhic-ùin and an unnamed watercourse at the head of Loch Ainort (as identified in **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**).
- In areas identified as important for salmon spawning, in-stream works, including trenching, would be carried out between early May and late October, in accordance with SEPA guidance.
- Machinery would be kept back from the stream banks to avoid damage or exacerbating erosion of banks, particularly where they have been recorded as unstable (as identified in **Appendix V2-4.5: Watercourse Crossing Fish Habitat Survey Report**).

³⁷ Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. Available at: <https://www.legislation.gov.uk/asp/2003/15/section/23> [Accessed June 2022]

- Implementation and monitoring of measures would be undertaken via a Water Quality and Fish Monitoring Plan (WQFMP) in line with Marine Scotland Science guidelines³⁸.

4.5.31 Although lower suitability habitat for fish was recorded at access track crossing locations during GI ECoW surveys, a similar process would still be carried out for all watercourse crossings during construction.

4.5.32 Complying with mitigation to prevent an offence under the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003 ensures that impacts and significant effects on fish and FWPM are considered unlikely and therefore they are scoped out of further assessment.

Protected Species

4.5.33 Effects on badger, bats, hares, pine marten, red squirrel, reptiles and water vole are scoped out of the assessment due to the absence of protected features, lack of suitable habitat, limited evidence within the study area, and/or lack of predicted impacts from the Proposed Development. The Species Protection Plan (SPP) details the required monitoring and measures within the mitigation hierarchy (avoidance, disturbance, destruction) which (**Volume 1, Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**) would ensure that all reasonably practicable measures are taken during construction so that provisions of the relevant wildlife legislation are complied with in relation to all protected species, should any evidence be found during pre-construction surveys.

Invasive Non-native Species

4.5.34 Desk studies identified a number of invasive plant species within the 5 km study area, with rhododendron also noted locally in field surveys in Sections 3, 4, 5 and 6. Pre-construction surveys would identify any such plants within the works area and biosecurity control methods would be followed as detailed in the GEMP (**Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**).

Deer

4.5.35 Desk studies show that red, roe, sika and fallow deer may be present in the study area. Deer densities on the Isle of Skye (Sections 0, 1, 2 and 3) are expected to be relatively low. The Glenelg DMG plan (relevant for Sections 4 and 5) notes that the current density of 14 deer per km² will deliver favourable status to the majority of habitats in the DMG area.

4.5.36 Due to the relatively narrow width of the Proposed Development corridor and the lack of deer fencing, it is considered that it would not pose a significant barrier to any local movements or migrations of deer and therefore deer may pass through uninhibited. In addition, it is considered that there would be no long-term land use changes as a result of the Proposed Development that could impact deer.

4.5.37 Any disturbance or displacement to deer, from construction activities, is not expected to create a deer welfare issue due to the suitability of surrounding land and its availability and accessibility for grazing and commuting locally, and deer would not be forced into areas of risk. Furthermore, disturbance impacts during construction would be localised and for a short period of time, rather than impacting a whole Section at once. As a result of the nature and size of the Proposed Development and the extensive suitable habitat locally, no negative effects on deer are predicted. As such, deer are scoped out of further assessment as significant impacts are considered unlikely.

Dismantling of the Existing OHL

³⁸ <https://www.gov.scot/publications/freshwater-and-diadromous-fish-and-fisheries-associated-with-onshore-wind-farm-and-transmission-line-developments-generic-scoping-guidelines/>

- 4.5.38 On commissioning of the Proposed Development, the existing 132 kV OHL would become redundant and would be dismantled. Details regarding the dismantling of the existing OHL and the measures that would be put in place to safeguard and protect the environment during dismantling operations are detailed in **Appendix V1-3.8: Dismantling Plan**.
- 4.5.39 As detailed in **Appendix V1-3.8: Dismantling Plan**, no new access tracks would be required to facilitate dismantling of the existing OHL. In the majority of cases, existing access tracks and low ground pressure tracked vehicles would be used to access tower and pole locations, with access and removal by helicopter proposed in steeper and more remote areas and within the Kinloch and Kyleakin Hills SAC and SSSI.
- 4.5.40 It is anticipated most of the existing steel lattice towers would be felled with an excavator mounted winch, with shears mounted on another excavator. The steel would be cut up into lengths that are suitable to be removed by low ground pressure tracked dumpers. Where this option is not possible due to towers that are inaccessible due to steep terrain, or for towers within the Kinloch and Kyleakin Hills SAC and SSSI (in order to protect the designated habitats), it is anticipated that these would be felled by a winch that has been flown into place then cut up into sections of adequate weights that can be flown to another area for further cutting or removed in sections by helicopter via operatives unbolting sections while on the tower.
- 4.5.41 Wood pole foundations are made up of the poles themselves plus some additional steel and timber below ground level. The extraction method for these is to dig down, remove the poles and backfill. For steel lattice tower locations where an excavator can achieve access, the foundations would be removed to below ground level, which is achieved by digging around the tower stub and concrete and breaking off at a specified depth. For towers where steel needs to be removed via helicopter it is proposed that the foundations would be left in place with the steel cut just above the concrete, where deemed safe to do so; this would mean some steel and/or concrete would still be visible above ground level.
- 4.5.42 Dismantling also means the existing OHL through Kinloch and Kyleakin Hills SAC and SSSI would be removed. As above, no new tracks or other infrastructure would be required to dismantle and remove the existing OHL within the SAC and SSSI, with towers and components dismantled *in-situ*. For existing towers within the SAC and SSSI, due to the steep terrain and inaccessibility, operatives, dismantling equipment and winches would be flown in by helicopter and the dismantled infrastructure also removed via helicopter. Within the SAC and SSSI, the preferred foundation removal option would be to cut the towers down to ground level but leave the concrete foundation in place to prevent the need to break up the foundation and in doing so avoid the need to bring in heavier tracked excavators and ATVs to each tower which may result in vegetation damage and scarring. Further details on dismantling proposals are provided within **Appendix V1-3.8: Dismantling Plan**. With the incorporation of the relevant standard pollution mitigation measures within the Site CEMP **Error! Reference source not found**, it is not expected that dismantling and removal of the existing OHL would result in adverse impacts leading to a significant effect (in EIA terms) or likely significant effect on the notified features and the qualifying features of the SSSI or SAC, respectively.
- 4.5.43 Dismantling of the existing OHL would allow the habitat in sections of the artificially maintained wayleave to recover through natural regeneration, likely resulting in a positive effect which is discussed further within the assessment below. This would potentially allow the re-establishment of areas of scrub and woodland in the long term where the existing wayleave through woodland is currently managed to maintain a safe operational corridor.

Decommissioning Impacts

- 4.5.44 The Proposed Development would not have a fixed operational life. The impacts associated with the construction phase can be considered to be representative of worst-case decommissioning impacts, and therefore no separate assessment is necessary, and has therefore been scoped out of the EclA assessment.

Important Ecological Features (IEFs)

4.5.45 Ecological features identified as being sensitive to the Proposed Development, are included in **Table V2-4.4: Summary of Important Ecological Features**, together with the justification for inclusion and the determination of Importance (value).

Table V2-4.4: Summary of Important Ecological Features

Important Ecological Feature	Importance	Relevant Legislation & Justification
Designated Sites		
Kinloch and Kyleakin Hills SAC	International	<p>The study area includes 181.8 ha of SAC habitat.</p> <p>Natura 2000 site designated under Conservation (Natural Habitats & c.) Regulations 1994 (as amended in Scotland).</p> <p>The Kinloch and Kyleakin Hills SAC covers 5275.63 ha and is designated for: alpine and subalpine heaths, blanket bog, dry heaths, mixed woodland on base-rich soils associated with rocky slopes, western acidic oak woodland, wet heathland with cross-leaved heath and otter.</p>
Kinloch And Kyleakin Hills SSSI (Monadh Chaol Acainn Is Cheann Loch)	National	<p>The study area includes 181.8 ha of SSSI habitat.</p> <p>The site is designated under the Nature Conservation (Scotland) Act 2004.</p> <p>The Kinloch and Kyleakin Hills SSSI covers 5266.95 ha and is designated for alpine heath, blanket bog, bryophyte assemblage, lichen assemblage, subalpine dry heath, subalpine wet heath, upland oak woodland and otter.</p> <p>Five Nationally Rare or Nationally Scarce bryophyte and lichen species were recorded in a number of locations within the study area, as well as other important habitat that support rich bryophyte and lichen assemblages.</p>
Ancient Woodland	National	<p>The study area includes 277.69 ha of habitat listed on the AWI⁷.</p> <p>Associated woodland types are listed as SBL priority habitats. Ancient woodland is considered to be an irreplaceable resource due to age and ecological complexity which is associated with a rich biodiversity that cannot be recreated when lost (flora and fauna may preserve elements of the natural composition of the original Atlantic forests; usually have much richer wildlife; reserve the integrity of soil ecological processes and associated biodiversity; some have been managed by traditional methods for centuries and demonstrate an enduring relationship between people and nature³⁹). Some habitat listed on the AWI may be no longer wooded, however the associated ground flora in the area can still preserve elements of the natural woodland composition and contribute a high species richness.</p> <p>Woodland is a priority habitat in the Highland BAP, and actions include to protect, regenerate, and restore native woodland, and working at a landscape scale to create woodland networks that improve forest diversity and biodiversity.</p> <p>Although there is no specific legislation protecting ancient woodland, Scottish Planning Policy considers that '<i>Ancient semi-natural woodland is an irreplaceable resource and, along with other woodlands, hedgerows and individual trees, especially veteran trees of high nature conservation and landscape value, should be protected from adverse impacts resulting</i></p>

³⁹ <https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi>

Important Ecological Feature	Importance	Relevant Legislation & Justification
		<p>from development⁴⁰. The Scottish Government's Policy on Control of Woodland Removal⁴¹ asserts a strong presumption against removing ancient semi-natural woodland, or Plantations on ancient woodland sites, amongst other types of woodland.</p> <p>There is 609,990 ha of ancient woodland UK wide⁴².</p>
Habitats (Phase 1 Habitat Code)		
Broadleaved semi-natural woodland (A1.1.1) & scattered broadleaved trees (A3.1)	Regional	<p>Broadleaved semi-natural woodland (A1.1.1) and scattered broadleaved trees (A3.1) covers 176.67 ha (3.79 %) of the study area outwith the Kinloch and Kyleakin Hills SAC/SSSI. The majority of this woodland is of NVC type W17; however, patches of, or mosaics with, W4 and W11 woodlands are also relatively common in areas. W7 forms a small proportion of the broadleaved woodland in the study area, with a very small area of W10 also recorded.</p> <p>Broadleaved woodland types are included as SBL priority habitats and Scottish planning policy includes a presumption against felling⁴¹. Woodland and forest is a priority habitat within the Highland BAP and actions include to protect, regenerate and restore native woodland, and working at a landscape scale to create woodland networks that improve forest diversity and biodiversity.</p> <p>Woodland has an important biodiversity value, including through combating climate change.</p>
Blanket Bog (E1.6.1) and Wet Modified Bog (E1.7)	Regional	<p>Blanket bog (E1.6.1) covers 682.46 ha and 14.62 % of the study area outwith the Kinloch and Kyleakin Hills SAC/SSSI, with wet modified bog (E1.7) covering 316.51 ha and 6.8 %. The blanket bog communities present, including M17 and M19 with some infrequent M1-M3, tend to represent areas of relatively undamaged, active and better-quality bog with frequent to abundant <i>Sphagna</i> in the basal layer. Communities representing wet modified bog habitat include M20 and M25a and have a lower relative quality. See Appendix V2-4.3: National Vegetation Classification and Habitats Survey Report for detailed descriptions of these habitats within each Section.</p> <p>The habitats are associated with SBL blanket bog habitat with some areas also corresponding to Annex 1 type 7130 blanket bog habitat. Peatland wetland is a priority habitat within the Highland BAP, and has an important biodiversity value, including through combating climate change.</p> <p>The SNH Carbon and Peatland Map identifies large areas of Class 1 peatland across Skye, with more fragmented areas of Class 2 peatland where the Proposed Development falls on the mainland. The Local BAP notes that peatlands are widespread in Skye and Lochalsh, often occurring as mosaics of blanket bog and heathlands⁹<small>Error! Bookmark not defined.</small> while the Highland BAP notes that the region has internationally significant peatlands⁸. This further demonstrates that mire habitat of this quality (and better) is relatively widespread across the local area as well as within the Highlands, which has Europe's largest expanse of blanket bog⁸.</p> <p>Despite these communities being associated with Annex 1 and SBL blanket bog classifications, the habitat within the study area is not considered to be Nationally important due to its size, and extent within the wider landscape. Therefore, assigning a Nature Conservation Value higher than Regional is not deemed appropriate. The design of the Proposed</p>

⁴⁰ <https://www.gov.scot/publications/scottish-planning-policy/pages/7/>

⁴¹ Forestry Commission Scotland (2009). The Scottish Government's Policy on Control of Woodland Removal.

⁴² <https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/habitats/ancient-woodland/>

Important Ecological Feature	Importance	Relevant Legislation & Justification
		Development has also sought to avoid the deeper and higher quality areas of peatland as far as practicable.
Wet Dwarf Shrub Heath (D2)	Local	<p>Wet dwarf shrub heath (D2) is common and extensive covering 1825.75 ha (39.12 %) of the NVC study area. The majority of wet heath present is M15 <i>Trichophorum germanicum</i> – <i>Erica tetralix</i> NVC type; predominately of the M15b and M15c sub-communities. M15 is a very common wet heath type within the region and across the uplands of Scotland.</p> <p>Wet heath is listed as an Annex 1 habitat in the Habitats Directive and is part of the SBL upland heathland priority habitat.</p> <p>Wet heath within the study area is considered of no greater than Local value due to its extent and quality. This type of habitat is widespread throughout the local area.</p>
Dry dwarf shrub heath (D1.1)	Local	<p>Dry dwarf shrub heath (D1.1) covers 144.31 ha (3.09 %) of the study area. The majority of dry heath within the study area is of the NVC type H10; however, there are smaller extents of H9, H12, H21 and a number of intermediate communities widespread within the study area.</p> <p>Dry heath is listed as an Annex 1 habitat in the Habitats Directive and is part of the SBL upland heathland priority habitat. Dry heath within the study area is considered of no greater than Local value due to its extent and fragmented distribution as generally small habitat patches. This type of habitat is widespread throughout the local area.</p>
Species		
Otter	Regional	<p>Otter is a European Protected Species (EPS) and is listed on the SBL. As an EPS, otter receive full protection under the 1994 Habitat Regulations. In summary, this legislation makes it an offence to deliberately or recklessly: capture, injure or kill an otter; harass an otter; disturb an otter in a resting place; disturb an otter while it is caring for its young; disturb an otter in a manner likely to significantly affect the local distribution or abundance of the species; disturb an otter in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or care for its young; or damage, destroy or obstruct a breeding site or resting place (whether or not an otter is present).</p> <p>Otter are a qualifying species of both the Kinloch and Kyleakin Hills SAC and SSSI designated sites. The SSSI citation notes that the site supports an otter population which is representative of the Scottish west coast and encompasses a large number of holts used for shelter and breeding, intertidal and inland feeding areas, and freshwater pools⁵.</p> <p>Otter activity, including potential resting sites (nine couches and six holts), was recorded along watercourses within all Sections of the Proposed Development.</p>

4.5.46 Given its designation, the Kinloch and Kyleakin Hills SAC and the associated qualifying features are inherently of International importance (National importance for the SSSI) (see **Appendix V2-4.2: Assessment Methodology**). However, the same IEFs outwith the SAC and SSSI are not attributed the same level of conservation importance as detailed in **Table V2-4.4: Summary of Important Ecological Features**. The following assessment therefore considers the impacts on these IEFs separately. Where relevant, reference is made to **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**.

4.6 Assessment of Predicted Impacts and Significance of Effects

Construction Impacts

- 4.6.1 This section provides an assessment of predicted impacts and consequent effects associated with construction of the Proposed Development based on the activities/works described in **Volume 1, Chapter 3: Project Description** and **Volume 2, Chapter 2: Section by Section Overview**.

Predicted Construction Impacts

- 4.6.2 The most tangible impact during construction of the Proposed Development would be direct habitat loss due to the construction of infrastructure such as new access tracks, tower foundations, associated tower construction compound areas, excavation for underground cable, cable sealing end compounds, and wayleave felling to create a safe operational corridor for conductors. Much of this infrastructure would be permanent, however any sections of temporary access track, and construction compounds and storage areas would be restored at the end of construction. Trenches excavated for installing underground cable would be backfilled and habitat reinstated where feasible. The **Site Reinstatement and Restoration Plan (Appendix V1-3.7)** will ensure that bare areas revegetate, and habitats are re-instated. However, temporary work areas may still result in habitat modification of certain habitat types due to the potential effects on the structure and function of supporting ecological systems, for instance effects on wetland or peatland habitats due to disrupted peatland hydrology and/or the quantity and quality of groundwater or overland flow.
- 4.6.3 Stone access tracks during construction are expected to have a running width of approximately 6 m, with an overall track working corridor of approximately 8 m to allow for suitable drainage and pollution prevention measures. The exception to this is within the Kinloch and Kyleakin Hills SAC and SSSI where proposed stone access tracks are expected to have a running width of approximately 4 m, with an overall track working corridor, where there may be additional disturbance and drainage and pollution prevention measures, of approximately 6 m. The narrower track requirements within the SAC and SSSI are due to the proposed use of helicopter in the designated site, which removes the need for large cranes with greater track width requirements to access tower locations. It is proposed that newly constructed haul tracks would be retained permanently to allow safe operational access. However, to minimise longer term impacts, permanent track width will be reduced to approximately 2.5 m for the operational period. Within the SAC and SSSI the stone tracks are proposed to be a combination of cut (3.5 km) and floating track design (5.8 km) which would consist of a geotextile material laid on top of the ground with stone laid on top to form the track (location shown on **Figure V1-3.1a-qq: Proposed Development**).
- 4.6.4 There may also be some indirect habitat losses to wetland habitats due to drainage impacts associated with permanent infrastructure. For the purposes of this assessment, it is assumed that wetland habitat losses due to indirect drainage and drying impacts may extend out to 10 m from permanent infrastructure⁴³. It is expected that any indirect drainage impacts would only affect wetland habitats such as blanket bog, wet modified bog, wet heath, flushes etc. No indirect drainage impacts are expected to affect or alter the quality or composition of non-wetland habitats, such as dry heath, bracken, acid grassland etc. and as such only direct habitat loss applies to those habitats.
- 4.6.5 Where new watercourse crossings are required, the design of the crossing would be in accordance with best practice guidelines and taking account of any ecological or hydrological constraints. The design of crossings would be agreed with SEPA prior to construction and be regulated by the Water Environment (Controlled

⁴³ In the carbon balance assessments for wind farm developments, it is generally assumed that wetland habitat losses due to indirect drainage effects may extend out to 10 m from excavated permanent infrastructure, which is in keeping with the indirect drainage assumptions used within the carbon calculator tool for these assessments (Windfarm Carbon Calculator Web Tool User Guidance https://informatics.sepa.org.uk/CarbonCalculator/assets/Carbon_calculator_User_Guidance.pdf). As much of the infrastructure to be used in the Proposed Development has similarities with infrastructure used in wind farms (e.g., foundation excavations, cut & fill and floating stone tracks) it is assumed this would be a reasonable assumption to make here with respect to indirect drainage effects around permanent infrastructure.

Activities) (Scotland) Regulations 2011 (CAR). A watercourse crossing schedule for permanent watercourse crossings is provided in **Appendix V2-6.2: Schedule of Permanent Watercourse Crossings**. Measures to mitigate potential effects of watercourse crossings of temporary tracks which would be used during the construction phase of the Proposed Development, would be agreed in the Site-specific CEMP.

- 4.6.6 **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI** below details the estimated losses expected to occur for IEFs as a result of new permanent and temporary infrastructure (including wayleave felling) for the entire Proposed Development route as well as the constituent per Section breakdown, or contribution, to the total value (this therefore provides detail on which IEF habitats are affected the most, or least, and the respective values, in each Section). With respect to NatureScot’s Natural Heritage Zone (NHZ) boundaries, which is an established biogeographical regional classification used by NatureScot, Sections 0, 1, 2 and approximately 43% of Section 3 (from Broadford to around Abhainn Lusa, southeast of Breakish) is located within NHZ 6: Western Seaboard. Approximately 57% of Section 3 from southeast of Breakish to Klye Rhea and the majority of Section 4 (98%, i.e., all except the last 925 m by Loch Quoich Dam) is within NHZ 8: Western Highlands. The last 925 m of Section 4 and all of Sections 5 and 6 are located within NHZ 7: Northern Highlands.
- 4.6.7 Detailed habitat loss, for all habitats within the study area, including NVC level loss, are included in **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development in Annex A**. The method for calculating habitat loss is also detailed in **Annex A**.
- 4.6.8 As a precautionary approach, habitat losses due to the creation of temporary access tracks and other temporary infrastructure such as tower construction compounds, as well as due to temporary trench works and the working corridor for underground cabling in Section 2 and Section 6, are included in habitat loss calculations. The existing habitat would be lost in temporary works areas and although areas would be restored at the end of the construction period, the habitat type which results after restoration may not be the same as the original habitat type due to changes in topographical or hydrological conditions. In particular, areas of land-take for this temporary infrastructure may represent permanent losses for habitat types such as blanket bog/wet modified bog due to the effects on the structure and function of the habitat type, and the complexities and long timescales involved in restoring or re-creating these particular habitat types.
- 4.6.9 Wayleave felling would be required through areas of woodland and the associated maintenance of a safe operational corridor. This loss of woodland is therefore also included in habitat loss calculations in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**. Forestry surveys (see **Volume 2, Chapter 9: Forestry**) have indicated that some areas within the Kinloch and Kyleakin Hills SAC and SSSI around Mudalach would require limited felling works to create the safe operational wayleave corridor. However, a reduced operational corridor through the SAC and SSSI has been adopted and instead of complete wayleave felling in these areas, **4.5.8** crown reduction is a proposed mitigation measure to reduce the impact of felling on woodland qualifying features of the SAC and SSSI and the bryophyte and lichen assemblage of the SSSI (as detailed in **paragraph 4.5.8**). Crown reduction would involve the removal of up to a third of the crown of the tree and is thus considered to be habitat modification, included within estimated habitat loss in **Table V2-4.6: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Within the Kinloch and Kyleakin Hills SAC and SSSI**.

Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI

Phase 1 Habitat Type (Code) and Habitat Loss Type	Phase 1 Extent in Study Area (ha) ⁴⁴	Section by Section Breakdown of Loss (ha)							Study Area Total (ha)	Study Area Total Direct + Indirect Loss (ha)	Total Direct + Indirect Loss as a % of Phase 1 Type in Study Area
		Section 0	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6			
Broadleaved Semi-Natural Woodland (A1.1.1) and Scattered Broadleaved Trees (A3.1): Direct	176.67	0	<0.001	0.05	0.33	5.28	7.19	0.61	13.46	13.46	7.62
Acid Dry Dwarf Shrub Heath (D1.1): Direct	144.31	<0.001	1.12	2.71	0.60	2.35	0.79	2.54	10.10	10.10	7.00
Wet Dwarf Shrub Heath (D2): Direct	1825.75	0.004	5.66	51.45	6.73	45.94	10.81	11.21	131.79	169.03	9.26
Wet Dwarf Shrub Heath (D2): Indirect		0	0.43	4.95	1.46	29.60	0.81	0	37.24		
Blanket Bog (E1.6.1): Direct	682.46	0.001	16.64	2.19	4.51	6.74	2.46	4.19	36.73	45.53	6.67
Blanket Bog (E1.6.1): Indirect		0	0.35	0.42	0.37	7.06	0.59	0	8.80		
Wet Modified Bog (E1.7): Direct	316.51	<0.001	7.00	2.63	3.31	0.91	3.27	5.10	22.23	28.63	9.05
Wet Modified Bog (E1.7): Indirect		0	2.11	0.33	2.42	0.94	0.59	0	6.40		

Table V2-4.6: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Within the Kinloch and Kyleakin Hills SAC and SSSI

Phase 1 Habitat Type (Code)	Phase 1 Extent within SAC/SSSI (ha)	Direct Habitat Loss (ha)	Indirect Habitat Loss (ha)	Direct & Indirect Habitat Loss (ha)	Total Direct + Indirect Habitat Loss as a % of SAC/SSSI Feature
Broadleaved Semi-Natural Woodland (A1.1.1) and Scattered Broadleaved Trees (A3.1)	168.81	0.76 (including 0.37 crown reduction)	N/A	0.76	0.45

⁴⁴ Not including within Kinloch and Kyleakin Hills SAC/SSSI.

Phase 1 Habitat Type (Code)	Phase 1 Extent within SAC/SSSI (ha)	Direct Habitat Loss (ha)	Indirect Habitat Loss (ha)	Direct & Indirect Habitat Loss (ha)	Total Direct + Indirect Habitat Loss as a % of SAC/SSSI Feature
Acid Dry Dwarf Shrub Heath (D1.1)	448.41	0.89	N/A	0.89	0.2
Wet Dwarf Shrub Heath (D2)	2215.69	4.88	5.50	10.38	0.47
Blanket Bog (E1.6.1) and Wet Modified Bog (E1.7)	965.41	2.17	2.53	4.7	0.49

4.6.10 The correlation between the Phase 1 habitat losses presented in **Table V2-4.6: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Within the Kinloch and Kyleakin Hills SAC and SSSI** and the respective associated NVC communities, SAC qualifying features, SSSI Notified Natural Features and Annex I habitats is presented in **Table V2-4.7: Correlation between Habitat Classifications with respect to Kinloch and Kyleakin Hills SAC and SSSI**.

Table V2-4.7: Correlation between Habitat Classifications with respect to Kinloch and Kyleakin Hills SAC and SSSI

Phase 1 Habitat	NVC Communities Recorded/Affected ⁴⁵	SAC Qualifying Feature	SSSI Notified Natural Feature	Annex I Habitat
A1.1.1 Broadleaved Semi-Natural Woodland and A3.1 Scattered Broadleaved Tree	W4, W11, W17, SBT	Western acidic oak woodland	Upland oak woodland	91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles
D1.1 Dry Dwarf Shrub Heath (Acid)	H10, H12, H21, H10-M25 intermediate	Dry heaths	Subalpine dry heath	4030 European dry heaths
D2 Wet Dwarf Shrub Heath	M15	Wet heathland with cross-leaved heath	Subalpine wet heath	4010 Northern Atlantic wet heaths with <i>Erica tetralix</i>
E1.6.1 Blanket Bog	M1, M2, M3, M17, M19	Blanket bog	Blanket bog	7130 Blanket bog
E1.7 Wet Modified Bog	M20, M25			

⁴⁵ Note, NVC communities associated with the SAC qualifying feature of Mixed woodland on base-rich soils associated with rocky slopes and Annex I type 9180 *Tilio-Acerion* forests of slopes, screes and ravines (i.e., W9) nor NVC communities associated with the SAC qualifying feature of Alpine and subalpine heaths, the SSSI feature of Alpine heath, and Annex I type 4060 Alpine and Boreal heaths (i.e., H14, H20, U7, U10, U13 as previously recorded within the SAC/SSSI⁵⁶) were not recorded within the respective study area for the Proposed Development and are therefore not subject to direct losses. Consequently, they are not included in this table.

- 4.6.11 Terrestrial habitats may be directly affected by habitat fragmentation as a result of the direct and indirect impacts noted above. This could in turn lead to a number of effects on the identified IEFs.
- 4.6.12 Point features such as towers or poles would not lead to fragmentation effects, however large linear features such as permanent access tracks could lead to effects on ancient woodland, semi-natural broadleaved woodland, dry heaths, wet heaths, blanket bog, and wet modified bog. In addition, woodland felling and crown reduction for the operational wayleave creation and maintenance may give rise to fragmentation effects on ancient woodland, semi-natural broadleaved woodland and scattered broadleaved trees.
- 4.6.13 Temporary infrastructure would be removed within 12 months and the soil/peat and habitats reinstated and restored in accordance with the **Site Reinstatement and Restoration Plan (Appendix V1-3.7)**. This is a short-term impact that is unlikely to result in significant habitat fragmentation effects. The typical extents of the temporary infrastructure are also unlikely to result in any barrier effects, especially considering these would be removed following construction.
- 4.6.14 Permanent infrastructure to be retained after the construction period comprises: the tower/pole structures, conductors, and reduced width (2.5 m) stone access tracks. The direct and indirect impacts on habitats associated with permanent and temporary access tracks and towers/poles during construction and operation of the Proposed Development have been detailed above.
- 4.6.15 The following parts of this parts of this Chapter describe the predicted impacts and the predicted significance of effects for each scoped-in IEF.

Kinloch and Kyleakin Hills SAC

- 4.6.16 As a European designated site, a detailed assessment of the impacts on the qualifying features of the Kinloch and Kyleakin Hills SAC has been undertaken in a shadow HRA for the Proposed Development to meet the requirements of the 2017 Habitat and Species Regulations (**Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**).
- 4.6.17 The assessment within this chapter addresses the requirements of the EIA Regulations through adherence to the guidance referred to in **paragraph 4.2.3**. The assessment process has informed the design, construction, and methods for work adjacent to and within the SAC's boundaries. The qualifying habitats of the Kinloch and Kyleakin Hills SAC are alpine and subalpine heath, blanket bog, dry heaths, mixed woodland on base-rich soils associated with rocky slopes, western acidic oak woodland, and wet heathland with cross-leaved heath. Otter are also a qualifying species of the SAC and predicted impacts and significance of effects are discussed from **paragraph 4.6.97**. Due to the location of infrastructure within the SAC, no impacts are anticipated on the habitats of alpine and subalpine heath or mixed woodland on base-rich soils associated with rocky slopes.
- 4.6.18 **Impact:** Direct and indirect habitat loss and modification, and potential fragmentation associated with the Proposed Development, on qualifying habitats would occur due to the requirement to strip or disturb vegetation for permanent and temporary infrastructure resulting in a reduction in the extent and distribution of qualifying habitats. There would also be additional habitat modification on upland oak woodland because of crown reduction for the operational wayleave, as detailed in **paragraph 4.5.8**. A description of predicted impacts on relevant qualifying habitats is provided under the non-SAC habitat IEF's further below in this assessment (blanket bog – from **paragraph 4.6.57**; subalpine dry heath – **paragraph 4.6.88**, subalpine wet heath – **paragraph 4.6.76**; western acidic oak woodland – **paragraph 4.6.40** and **paragraph 4.6.48**; bryophyte and lichen assemblage (component of western acidic oak woodland) – **paragraph 4.6.32**).
- 4.6.19 **Importance of Ecological Feature: International** (as described in **Table V2-4.4: Summary of Important Ecological Features**).

- 4.6.20 **Conservation Status:** Detailed in **Table V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features.**
- 4.6.21 **Impact Magnitude:** Detailed habitat loss for each qualifying feature is included in **Table V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features.** In total, 8.33 ha of the designated site qualifying habitat features falls beneath the footprint (direct loss) of the Proposed Development (OHL tower compounds and access tracks). Indirect impacts on wetland habitats could result in further habitat loss of approximately 8.03 ha of the designated site qualifying wetland habitat features, with crown reduction creating a further woodland modification of 0.370 ha. In total, direct and indirect habitat loss and crown modification combined would equate to 16.73 ha, or 0.32 % of the SAC.
- 4.6.22 When considering the habitat loss, and accounting for the abundance, distribution and quality of the habitat within the designated site as well as the wider area, an impact magnitude of **Low Spatial** and **Long-Term-Permanent Temporal** is appropriate for all qualifying habitats.
- 4.6.23 **Significance of Effect:** Although the impact is at a Low spatial scale, the Proposed Development would undermine conservation objectives over the Long-Term or Permanently (further detailed below in **Table V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features** and **Part 8.3.1 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**). In the absence of compensation, the effect on the SAC from the Proposed Development is considered to be **Moderate Adverse** and **Significant**.

Table V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features

Qualifying Feature ⁴⁶	Impact and Effect	Conservation Status and Condition of Habitat	Impact Magnitude	Significance of Effect
Blanket Bog	<p>Detailed in Blanket Bog and Wet Modified Bog (paragraph 4.6.57).</p> <p>Direct and indirect habitat loss.</p> <p>Impacts primarily lead to effects on the following conservation objectives:</p> <ul style="list-style-type: none"> Reduction in extent of qualifying habitat. Structure and function of habitat. Processes supporting habitat. 	<p>Assessed in the 2019 JNCC report on blanket bog as 'Unfavourable - Bad' and 'Stable' at the UK level⁴⁷. The Conservation Status of the blanket bog feature of the SAC is considered 'Favourable Maintained' with 'no negative pressures'⁴⁸; the contemporary NVC surveys and observations in this area would continue to indicate the blanket bog locally remains in Favourable condition.</p>	<p>Blanket Bog (E1.6.1): direct (1.34 ha) and indirect (1.78 ha) impacts.</p> <p>Wet Modified Bog (E1.7): direct (0.83 ha) and indirect (0.75 ha) impacts.</p> <p>Blanket Bog and Wet Modified Bog combined (i.e., the qualifying feature) equals 2.17 ha direct and 2.53 ha indirect impacts; a direct + indirect total of 4.7 ha which is equivalent to 0.49 % of the blanket bog extent within the SAC⁴⁹.</p> <p>Low Spatial and Long-Term/Permanent Temporal</p>	<p>Moderate Adverse & Significant</p>
Dry Heaths	<p>Detailed in Dry dwarf shrub heath (paragraph 4.6.88).</p> <p>Direct and indirect habitat loss.</p> <p>Impacts primarily lead to effects on the following conservation objectives:</p> <ul style="list-style-type: none"> Reduction in extent of qualifying habitat. 	<p>Assessed at the UK level as 'Unfavourable Bad' and 'Improving'⁵⁰. However, the Conservation Status of dry heath at the SAC is considered 'Favourable Maintained' (17 February 2015) with 'invasive species – bracken' noted as a 'negative pressure'⁴⁸. The contemporary NVC surveys and observations in the SAC area would continue to indicate the dry heath locally is in Favourable condition.</p>	<p>Direct impacts on 0.89 ha, which is equivalent to 0.2 % of the dry heath within the SAC.</p> <p>Low Spatial and Long-Term/Permanent Temporal</p>	<p>Moderate Adverse & Significant</p>

⁴⁶ Not including scoped out features (Alpine and Subalpine Heaths, Mixed Woodland on Base Rich Soils Associated with Rocky Slopes, and Otter)

⁴⁷ <https://jncc.gov.uk/jncc-assets/Art17/H7130-UK-Habitats-Directive-Art17-2019.pdf> [Accessed June 2022]

⁴⁸ <https://sitelink.nature.scot/site/8282>

⁴⁹ As per the SAC citation there is approximately 965.41 ha of blanket bog within the SAC (<https://sitelink.nature.scot/site/8282>)

⁵⁰ <https://jncc.gov.uk/jncc-assets/Art17/H4030-UK-Habitats-Directive-Art17-2019.pdf>

Qualifying Feature ⁴⁶	Impact and Effect	Conservation Status and Condition of Habitat	Impact Magnitude	Significance of Effect
Western Acidic Oak Woodland	<p><u>Detailed in</u> Broadleaved Semi-Natural Woodland (paragraphs 4.6.57 and 4.6.32).</p> <p>Direct habitat loss and disturbance for tower foundations and access tracks; crown reduction for wayleave clearance.</p> <p>Impacts primarily lead to effects on the following conservation objectives:</p> <ul style="list-style-type: none"> • Reduction in extent of qualifying habitat. • Structure and function of habitat. • Processes supporting habitat. 	<p>Assessed in the 2019 JNCC report on Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles⁵¹ as 'Unfavourable Bad' and 'Stable'⁵². The conservation Status of the woodland within the SAC (and SSSI) is considered 'Unfavourable Declining' (9 October 2013), with negative pressures on the habitat noted as invasive species and overgrazing⁴⁸. However, the Conservation Status of particular stands may be variable, as described in paragraph 4.6.52. The contemporary NVC surveys and observations in the SAC would now indicate the western acidic oak woodland locally may be better considered as Unfavourable Recovering given reduced deer browsing pressures which is allowing natural regeneration and expansion of woodland areas with many young saplings and trees recorded at relatively high densities; however, some negative pressures remain in the form of invasive plant species, such as rhododendron, cotoneaster and self-seeded non-native conifer species^{6, 31}.</p>	<p>Direct impacts on 0.76 ha (of which 0.37 ha is for crown reduction), which is equivalent to 0.45 % of the western acidic oak woodland within the SAC.</p> <p>Low Spatial and Long-Term/Permanent Temporal</p>	<p>Moderate Adverse & Significant</p>
Wet Heathland With Cross-Leaved Heath	<p>Detailed in Wet Dwarf Shrub Heath (paragraph 4.6.76).</p> <p>Direct and indirect habitat loss.</p> <p>Impacts primarily lead to effects on the following conservation objectives:</p> <ul style="list-style-type: none"> • Reduction in extent of qualifying habitat. • Structure and function of habitat. • Processes supporting habitat. 	<p>Assessed in the 2019 JNCC report on Northern Atlantic wet heaths with <i>Erica tetralix</i> as 'Unfavourable - Bad' and 'Deteriorating' at the UK level⁵³. The Conservation Status of the wet heathland feature of the SAC is considered 'Unfavourable Declining' (11 September 2009) with 'overgrazing' cited as a negative pressure⁴⁸, management measures were then put in place that should, in time, improve the feature to Favourable condition (Unfavourable Recovering due to Management). As Site Condition Monitoring (SCM) of wet heath in the SAC has not been undertaken since 2009, this classification is likely outdated. The contemporary NVC surveys and observations in this area now indicate a much-reduced grazing pressure and recovery of the wet heath feature and a likely return to Favourable condition. It was also anecdotally noted by Ben Averis⁵⁴ during bryophyte and lichen surveys for the Proposed Development in this area in April 2022 that the level of grazing in the wet heath habitats appears to</p>	<p>Direct and indirect impacts on 10.38 ha, which is equivalent to 0.47 % of the wet heathland and cross-leaved heath within the SAC.</p> <p>Low Spatial and Long-Term/Permanent Temporal</p>	<p>Moderate Adverse & Significant</p>

⁵¹ There are several Annex I woodland types, however 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles is the prevailing type and generally the most appropriate fit for the semi-natural broadleaved woodlands and ancient woodland areas recorded within the study area and present locally.

⁵² <https://jncc.gov.uk/jncc-assets/Art17/H91A0-UK-Habitats-Directive-Art17-2019.pdf>

⁵³ <https://jncc.gov.uk/jncc-assets/Art17/H4010-UK-Habitats-Directive-Art17-2019.pdf>

⁵⁴ Ben Averis *pers. comm.* 04 May 2022.

Qualifying Feature ⁴⁶	Impact and Effect	Conservation Status and Condition of Habitat	Impact Magnitude	Significance of Effect
		have reduced since he last surveyed this area in 2002 ⁵⁵ , with an abundance of tall, tussocky bog and heath vegetation prevailing.		

⁵⁵ Averis, A.B.G. & James, P. (2002). A Botanical Assessment for the Kinloch Hills Wilderness Forest Project, Isle of Skye, Scotland. Commissioned Report for Forestry Commission Scotland.

Kinloch and Kyleakin Hills SSSI

- 4.6.24 The SSSI boundary is the same as the SAC boundary and although some of the SSSI and SAC features have different names they correspond with each other⁵⁶, as shown in **Table V2-4.7: Correlation between Habitat Classifications with respect to Kinloch and Kyleakin Hills SAC and SSSI**. The Notified Natural Features of the Kinloch and Kyleakin Hills SSSI include the following habitats: blanket bog, subalpine dry heath, subalpine wet heath, upland oak woodland and alpine heath. In addition, bryophyte and lichen assemblages, and otter are also Notified Natural Features of the SSSI and are considered below, from **paragraphs 4.6.31 and 4.6.97** respectively, due to differences in the types of predicted impacts compared with the habitats discussed here. No areas of alpine heath are anticipated to be impacted due to the location of the habitat and this habitat is therefore not discussed further.
- 4.6.25 **Impact:** Described within relevant corresponding IEF's detailed further below in this assessment (blanket bog – **paragraph 4.6.57**; subalpine dry heath – **paragraph 4.6.88**, subalpine wet heath – **paragraph 4.6.76**; upland oak woodland – **paragraph 4.6.40** and **paragraph 4.6.48**; bryophyte and lichen assemblage – **paragraph 4.6.32**).
- 4.6.26 **Importance of Ecological Feature: National** (as assessed in **Table V2-4.4: Summary of Important Ecological Features**).
- 4.6.27 **Conservation Status:** As detailed for the corresponding SAC habitats in **Table V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features**.
- 4.6.28 **Impact Magnitude:** Expected habitat loss and modification from the Proposed Development would directly and indirectly (i.e., on wetland habitat) impact approximately 16.73 ha of the SSSI notified natural habitat features (i.e., IEFs), equating to 0.32 % of the designated site. The breakdown of habitat loss and modification of scoped-in qualifying habitats within the SSSI are as follows:
- Blanket bog: This notified natural feature comprises Blanket Bog (E1.6.1) and Wet Modified Bog (E1.7). Impacts on Blanket Bog are direct (1.34 ha) and indirect (1.78 ha). Impacts on Wet Modified Bog are direct (0.83 ha) and indirect (0.75 ha). Blanket Bog and Wet Modified Bog combined (i.e., the notified natural feature) equals 2.17 ha direct and 2.53 ha indirect impacts; a direct + indirect total of 4.7 ha which is equivalent to 0.49 % of the blanket bog extent within the SSSI;
 - Subalpine dry heath: Direct impacts on 0.89 ha (equivalent to 0.2 % of the dry heath within the SSSI);
 - Upland oak woodland: 0.76 ha (of which 0.37 ha is for crown reduction), equivalent to 0.45 % of the habitat in the site; and
 - Subalpine wet heath: Direct and indirect impacts on 10.38 ha, which is equivalent to 0.47 % of the wet heathland and cross-leaved heath within the SSSI.
- 4.6.29 When considering the above habitat loss, and accounting for the abundance, distribution and quality of the habitat within the designated site as well as the wider area, an impact magnitude of **Low Spatial** and **Long-Term/Permanent Temporal** is appropriate for all qualifying habitats.
- 4.6.30 **Significance of Effect:** Taking into account the SSSI's conservation status, National importance and magnitude of impact, the effect is considered to be **Moderate Adverse** and **Significant** under the terms of the EIA Regulations. The significance of effect for the four natural notified features (noted above) are all **Moderate Adverse** and **Significant** similar to the corresponding assessment for the SAC qualifying habitats within **Table**

⁵⁶ Kinloch and Kyleakin Hills SSSI Management Statement (<https://sitelink.nature.scot/site/8173>)

V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features.

Kinloch and Kyleakin Hills SSSI - Bryophyte and Lichen Assemblage

- 4.6.31 Assemblages of bryophyte and lichen are a Notified Natural Feature of the Kinloch and Kyleakin Hills SSSI and contribute to the structure and function of the SSSI and corresponding SAC.
- 4.6.32 **Impact:** Direct impacts on oceanic assemblage of bryophytes and lichens, including Nationally Rare or Nationally Scarce species, from localised felling/lopping, excavation, and ground preparation for tower foundations and access tracks, leading to loss of species and reduction in species extent and distribution. Indirect and fragmentation impacts from changes in microclimate through amending habitat composition (forest felling, reduction in water availability through drying impacts, and increased dominance of vascular plants) during ground preparation and wayleave maintenance.
- 4.6.33 **Importance of Ecological Feature: National** (as assessed in **Table V2-4.4: Summary of Important Ecological Features**).
- 4.6.34 **Conservation Status:** The conservation status of the lichen assemblage is considered 'Unfavourable declining' (13 December 2013) and the bryophyte assemblage 'Favourable declining' (11 August 2015)⁵⁷.
- 4.6.35 **Impact Magnitude:** Ground preparation for infrastructure could impact a number of oceanic assemblages that were recorded throughout the SSSI site as shown on **Figure V2-4.5: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Area and Results** and detailed in **Appendix V2-4.6: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Report**. This includes potential impacts on six locations (Target Notes (TNs) 47, 51, 53, 56, 131, 132 on **Figure V2-4.5: Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Area and Results**) where Nationally Rare and Nationally Scarce species were recorded in proximity to proposed infrastructure or within the LoD for the Proposed Development. A number of habitats where important bryophyte and lichen assemblages were recorded were in ravines or on very steep and variably wooded slopes. These habitats would be avoided during works due to being too steep and inaccessible, and therefore impacts in these areas are unlikely.
- 4.6.36 For wayleave maintenance, conductors would be able to span over the majority of woodland areas within the SSSI without the need for felling, lopping or crown reduction during construction. However, forestry data and modelling has indicated that 0.37 ha of woodland crown reduction would be required within the SAC and SSSI either during construction or within four years of the date of the forestry survey (undertaken in January 2022, see **Volume 2, Chapter 9: Forestry**), due to predicted and potential encroachment of trees within 3.5 m electric safety zones from conductors. Predicted crown reduction areas overlap with TN 2 on the upper Allt a' Ghleannain **Figure V2-4.5: (02) Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Area and Results**. TNs 21 and 22 are also located a short distance to the south of the crown reduction zone located west of Allt an Rèidhe Mhòir (**Figure V2-4.5: (03) Kinloch & Kyleakin Hills SAC/SSSI Bryophyte and Lichen Survey Area and Results**). Crown reduction requires the physical removal of sections of the upper tree, which may result in the direct loss of epiphytic species. In addition, in a denser woodland this could in turn modify the levels of shade, light and heat penetration and subsequently may affect the microclimate and humidity within the tree canopy and underneath on the woodland floor. With increasing light penetration and reduced humidity and moisture, the oceanic woodland bryophytes and lichens that rely on these conditions, may be negatively affected, including through fragmentation of suitable habitat. However, due to the scattered and low-density nature of trees at these three locations it is considered that such micro-climate effects would be minimal but may increase slightly as the woodland matures, and potential impacts are therefore likely limited to direct loss during crown reduction rather than indirect effects through a change in microclimate (further detail

⁵⁷ <https://sitelink.nature.scot/site/8173>

consideration is provided within **Section 8.5.2 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**).

4.6.37 When considering the above potential impacts, uncertainty surrounding the impacts, and accounting for the abundance and distribution of bryophytes and lichen within the study area, an impact magnitude of **Low to Moderate Spatial** and **Long-Term Temporal** is appropriate.

4.6.38 **Significance of Effect:** Taking into account the Bryophyte and Lichen assemblages' conservation status, National importance, uncertainty, and potential magnitude of impact, the effect is considered to be **Minor to Moderate Adverse** and **Significant** under the terms of the EIA Regulations.

Ancient Woodland

4.6.39 Due to their age and associated complex biodiversity, ancient woodland is considered an irreplaceable habitat.

4.6.40 **Impact:** Direct loss, disturbance and fragmentation of woodland for permanent and temporary infrastructure, and wayleave corridor, leading to a reduction in the extent of ancient woodland and associated biodiversity of these areas, including reduction in animal and plant communities associated with the habitat.

4.6.41 It is important to note that the infrastructure would require to pass through AWI polygons⁷. In these areas, even if no trees are required to be felled, the infrastructure would still pass through the patches of associated open ground habitat amongst the trees, which may be woodland glade habitats or habitats that contain species that are linked to the surrounding and nearby trees and patches of woodland. As such, these small patches of open ground are still considered part of the wider AWI feature, and even though no trees may be felled, there are losses predicted to the underlying areas of open ground/woodland glade.

4.6.42 **Importance of Ecological Feature: National** (as assessed in **Table V2-4.4: Summary of Important Ecological Features**).

4.6.43 **Conservation Status:** Conservation Status of this habitat as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive on Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles⁵¹ is assessed as 'Unfavourable Bad' and 'Stable'⁵².

4.6.44 However, the Conservation Status of woodlands within the study area is considered to be variable depending on the area considered. Some areas are likely to be considered Unfavourable or Unfavourable Recovering whilst others may be seen as better categorised in one of the Favourable categories. This variability is attributed to the wide range of factors that need to be considered when determining the quality, condition, and associated conservation status of any particular stand of woodland. Such factors include, but are not limited to, extent of woodland, physical structure, canopy species composition and diversity, age classes and structure, understorey presence and composition, ground flora composition and distinctiveness, amount of open space/presence of woodland glades, evidence of natural processes, evidence of natural regeneration, amount of dead wood, evidence of browsing, invasive species etc. It is clear from **paragraphs 4.4.31 to 4.4.36** that deer densities vary widely across the Site and as such will have varying levels of impact on this IEF.

4.6.45 **Magnitude of impact:** The Proposed Development would include the direct loss of approximately 20.58 ha of habitat listed on the AWI⁷ (7.41 % of ancient woodland within the study area, outwith the Kinloch and Kyleakin Hills SAC) as a result of permanent and temporary infrastructure requirements for the OHL, wayleave felling for the operational corridor, and the underground cable working corridor (N.B., this applies to Section 6 only). The amount of habitat loss per Section is detailed in **Table V2-4.9: Ancient Woodland Loss**. As can be seen in this table the majority of losses are predicted within Section 5 (8.37 ha, or 41% of loss), Section 6 (6.28 ha, or 31% of loss), and Section 4 (4.73 ha, or 23% of loss); these three Sections account for 94% of the predicted direct losses on habitat listed on the AWI⁷. The remainder of predicted losses on habitat listed on the AWI is

attributed to Section 3 (outside of the Kinloch and Kyleakin Hills SAC and SSSI), with no losses predicted in Sections 0, 1 and 2; see **Table V2-4.9: Ancient Woodland Loss**. It should also be noted that with respect to Section 6, despite the 6.28 ha (or 31%) of AWI habitat loss predicted, no felling of trees is actually required or anticipated in this Section and this is because the respective AWI area affected by the Proposed Development in Section 6 was previously commercially afforested but has since been clear-felled, with no further felling anticipated here for the Proposed Development (see **Volume 2, Chapter 9: Forestry** for detailed felling requirements).

4.6.46 When considering the scale of the loss of ancient woodland habitat (i.e., direct impact on up to 7.41 % of ancient woodland habitat within the study area), an impact magnitude of **Low Spatial** and **Permanent Temporal** is appropriate.

4.6.47 **Significance of Effect:** Taking into account the conservation status of Ancient Woodland, National importance and magnitude of impact, the effect is considered to be **Moderate Adverse** and **Significant** under the terms of the EIA Regulations.

Table V2-4.9: Ancient Woodland Loss

Section	0	1	2	3 ⁵⁸	4	5	6
Baseline within study area (ha)	0	0	0	25.70	73.97	124.35	53.67
Direct loss beneath footprint of infrastructure design (ha)	N/A	N/A	N/A	0.76	3.24	5.38	6.28
Wayleave loss (ha)	N/A	N/A	N/A	0.44	1.49	2.99	N/A
Total loss (ha)	0	0	0	1.20	4.73 ⁵⁹	8.37 ⁶⁰	6.28 ⁶¹

Broadleaved Semi-Natural Woodland (A1.1.1 and A3.1)

4.6.48 **Impact:** Direct habitat loss and disturbance associated with the Proposed Development will occur due to the requirement to strip vegetation for permanent tower foundations and permanent and temporary access tracks, resulting in a reduction in the extent and distribution of this habitat. There will also be additional habitat loss due to wayleave felling.

4.6.49 It is important to note that the infrastructure requires to pass through woodland NVC polygons. In these areas, even if no trees are required to be felled, the infrastructure would still pass through the patches of associated open ground habitat amongst the trees, which may be woodland glade habitats or habitats that contain species that are linked to the surrounding and nearby trees and patches of woodland. As such, these small patches of open ground are still considered part of the wider woodland feature, and even though no trees may be felled, there are losses predicted to the underlying areas of open ground/woodland glade.

4.6.50 **Importance of Ecological Feature: Regional** (as determined in **Table V2-4.4: Summary of Important Ecological Features**).

⁵⁸ Outside of the Kinloch and Kyleakin Hills SAC and SSSI.

⁵⁹ 1.39 ha of this overlaps with Phase 1 Habitat A1.1.1, Broadleaved semi-natural woodland (0.64 ha direct and 0.74 ha wayleave loss).

⁶⁰ 2.12 ha of this overlaps with Phase 1 Habitat A1.1.1, Broadleaved semi-natural woodland (1.1 ha direct and 1.03 ha wayleave loss).

⁶¹ 0.14 ha of this overlaps with Phase 1 Habitat A1.1.1, Broadleaved semi-natural woodland.

- 4.6.51 **Conservation Status:** Conservation Status of this habitat as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive on Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles⁵⁰ is assessed as 'Unfavourable Bad' and 'Stable'⁵¹.
- 4.6.52 However, the Conservation Status of semi-natural broadleaved woodland within the study area is considered to be variable depending on the area considered. Some areas are likely to be considered Unfavourable or Unfavourable Recovering whilst others may be seen as falling in one of the Favourable categories. This variability is attributed to the wide range of factors that need to be considered when determining the quality, condition, and associated conservation status of any particular stand of woodland. Such factors include, but are not limited to, extent of woodland, physical structure, canopy species composition and diversity, age classes and structure, understorey presence and composition, ground flora composition and distinctiveness, amount of open space, evidence of natural processes, evidence of natural regeneration, amount of dead wood, evidence of browsing, invasive species etc. It is clear from **paragraphs 4.4.31 to 4.4.36** that deer densities vary widely across the Proposed Development and as such these will have varying levels of impact on this IEF.
- 4.6.53 **Impact Magnitude:** The UK has an estimated area of 91,591 ha of old sessile oak woods with *Ilex* and *Blechnum* in the British Isles⁵², of which 22,591 ha is in Scotland⁶².
- 4.6.54 Broadleaved semi-natural woodland and scattered broadleaved trees cover 176.67 ha (3.79%) of the study area outside of the Kinloch and Kyleakin Hills SAC/SSSI. The direct habitat loss or modification for this feature is predicted to be 13.46 ha due to temporary and permanent infrastructure and wayleave felling, or 7.62 % of the respective habitat type within the study area (detailed within **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development**). The per Section breakdown of losses is also provided in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**. This table indicates that 93% of the losses to the broadleaved semi-natural woodland and scattered broadleaved trees IEF are predicted to occur in Section 4 (5.28 ha) and Section 5 (7.19 ha) where these losses are due to both the direct footprint of infrastructure and wayleave felling required for the operational corridor. Much smaller losses are predicted in Sections 1, 2, 3 and 6; with no losses predicted in Section 0.
- 4.6.55 When considering the above habitat loss, and accounting for the abundance, distribution and quality of the habitat within the study area as well as the wider area, an effect magnitude of **Low Spatial and Long-Term/Permanent Temporal** is appropriate.
- 4.6.56 **Significance of Effect:** Taking into account broadleaved semi-natural woodland's conservation status, Regional importance and magnitude of impact, the effect is considered to be **Minor Adverse** and **Not Significant** under the terms of the EIA Regulations.

Blanket Bog and Wet Modified Bog

- 4.6.57 **Impact:** Impacts upon blanket bog and wet modified bog habitats would be direct (through permanent and temporary habitat loss) and indirect (through potential drainage drying impacts upon neighbouring bog habitats) occurring from the construction period into the operational period and would result in a reduction in the extent and distribution of this habitat. Direct loss would occur in areas where permanent infrastructure is sited on these habitat types. The excavation of these habitat types for temporary infrastructure would also lead to losses of blanket bog and wet modified bog due to the long-term effect on the ecological and hydrological structure and function of these habitat types. In addition, there may be indirect losses as a result of drainage and disruption to hydrological flows around infrastructure and underground cables (10 m is assumed).

⁶² <https://jncc.gov.uk/jncc-assets/Art17/H91A0-SC-Habitats-Directive-Art17-2019.pdf>

- 4.6.58 With regard to blanket bog and wet modified bog, fragmentation could involve the creation of smaller areas of habitat which in turn could impair the functioning and reduce the resilience of essential hydrological processes. This could make the impacted habitat more vulnerable to future decline in condition and potentially lead to a transition to a different habitat type such as blanket bog to wet modified bog/wet heath or wet modified bog to dry modified bog/wet heath, or more subtle sub-community shifts.
- 4.6.59 For blanket bog and wet modified bog, fragmentation effects are a function of the extent of the hydrological unit, location of impact within the unit and magnitude of direct and indirect impact in the context of the hydrological unit. It is clear from **Figures V2-4.3: National Vegetation Classification Survey Area and Results**, that blanket bog and wet heath habitats exist together and with other wetland habitats (e.g., mires, flushes and marshy grasslands) in large expansive hydrologically connected mosaics across the study area. The large scale of these wetland habitat mosaics reduces the likelihood that small, fragmented habitat patches would be created. As shown in **Figures V2-4.3: National Vegetation Classification Survey Area and Results**, no small-scale habitat fragments appear to be created by the location of permanent tracks and other infrastructure.
- 4.6.60 It is therefore unlikely that the potential impact of fragmentation would lead to further loss of blanket bog and wet modified bog in addition to that predicted to occur as a result of direct loss and precautionary indirect loss figures detailed above.
- 4.6.61 **Importance of Ecological Feature: Regional** (as determined in **Table V2-4.4: Summary of Important Ecological Features**).
- 4.6.62 **Conservation Status:** Conservation Status of this habitat as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive on blanket bog is assessed as 'Unfavourable Bad' and 'Stable' at the UK level⁴⁷⁴⁷.
- 4.6.63 However, the Conservation Status of blanket bog within the study area is considered for the most part to more likely to be 'Favourable – Maintained' or 'Favourable Recovered' if compared to NatureScot site condition monitoring definitions and terminology⁶³ and depending on the area considered⁶⁴. This assertion is made based upon the general high quality and good condition of blanket bog within the study area given the amount and distribution of intact, relatively undisturbed, undrained and active peat forming M17 blanket bog. The M17 community onsite contains a good representation of typical peat forming and key indicator species and contains areas of abundant broad-branched *Sphagna* and frequent M1 – M3 bog pools, alongside a general lack of obvious current or historical impacts on the habitat (notwithstanding local impacts of adjacent commercial conifer plantations and apparently light grazing/browsing). The blanket bog generally appears stable and peat-forming (see also **Appendix V2-4.3: National Vegetation Classification and Habitats Survey Report** for further information on habitats).
- 4.6.64 **Impact Magnitude:** The UK has an estimated 2,182,200 ha of blanket bog^{47Error! Bookmark not defined.} of which a round 1,759,000 to 1,800,000 ha is in Scotland⁶⁵ (approximately 23% of the land area)⁶⁶. The Highland Council (i.e., the council area in which the Proposed Development is situated) covers a land area of 2,565,700 ha and the terrestrial environment contains large, open stretches of moorland and heathland, including areas of semi-natural woodland.

⁶³ <https://www.nature.scot/professional-advice/protected-areas-and-species/protected-areas/site-condition-monitoring/assessment-condition> [Accessed June 2022]

⁶⁴ Note, no dedicated Site Condition Monitoring (SCM) or Common Standards Monitoring (CSM) surveys were carried out within the study area, however based on walkover surveys and NVC surveys, and noting the quality and condition of the habitats, along with familiarity of CSM methodology allows an indication of the state of the habitat and its likely conservation status at the site or study area level.

⁶⁵ <https://jncc.gov.uk/jncc-assets/Art17/H7130-SC-Habitats-Directive-Art17-2019.pdf> [Accessed March 2022]

⁶⁶ <https://www.nature.scot/landscapes-habitats-and-ecosystems/habitat-types/mountains-heaths-and-bogs/blanket-bog> [Accessed March 2022]

- 4.6.65 Estimated loss of blanket bog and wet modified bog within the study area (including the per Section breakdown) is included in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**. The overall loss of habitat to NVC level is detailed in **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development**.
- 4.6.66 Blanket bog covers 682.46 ha (14.62 %) of the study area outwith the Kinloch and Kyleakin Hills SAC and SSSI; of which the majority is M17 mire, with some areas of M19 and M1 – M3 bog pools (detailed in **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development**). The direct habitat loss for blanket bog is predicted to be 36.73 ha due to permanent and temporary infrastructure, equivalent to 5.38 % of the respective habitat type in the study area. As shown in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI** the largest losses to blanket bog are predicted to occur in Section 1 (16.64 ha, or 45% of the total direct blanket bog loss) as a result of land-take requirements for permanent and temporary infrastructure. Smaller levels of direct blanket bog loss are present on all other Sections.
- 4.6.67 Wet modified bog covers 316.51 ha of the study area outwith the Kinloch and Kyleakin Hills SAC/SSSI. The direct habitat loss for wet modified bog is predicted to be 22.23 ha due to permanent and temporary infrastructure, equivalent to 7.02 % of the respective habitat type within the study area. As shown in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI** the largest losses to wet modified bog are predicted to occur in Section 1 (7.00 ha, or 31% of the total direct wet modified bog loss) as a result of land-take requirements for permanent and temporary infrastructure and in Section 6 (5.10 ha, or 23% of the total direct wet modified bog loss) as a result of the working corridor required for underground cabling works. Smaller levels of direct wet modified bog loss are present on all other Sections.
- 4.6.68 For this blanket mire resource as a whole, i.e., combining blanket bog and wet modified bog, direct losses amount to 58.96 ha for permanent and temporary infrastructure, or 5.9 % of the respective study area (40% of these combined losses occur within Section 1).
- 4.6.69 In addition, there may be some indirect losses because of the zone of drainage around permanent infrastructure. The actual distance of the impacts of drainage on a peatland is variable and depends on various factors such as the type of peatland and its characteristics and properties of the peat; the type, size, distribution and frequency of drainage feature; and whether the drainage affects the acrotelm, penetrates the catotelm, or both. Consequently, drainage impacts can be restricted to just a few metres around the feature or extend out to tens of metres, or further (e.g., review within Landry & Rochefort (2012)⁶⁷). The hydraulic conductivity of the peatland is one of the key variables which affect the extent of drainage. In general, less decomposed more fibric peatlands (which tend to be found commonly in fen type habitats) generally have a higher hydraulic conductivity and drainage impacts can extend to around 50 m, whilst in more decomposed (less fibrous) peat drainage impacts may only extend to around 2 m. Blanket bog habitats commonly are associated with more highly decomposed peats (Nayak *et al.* 2008⁶⁸). For this assessment, indirect impacts are assumed to extend out to 10 m from infrastructure.
- 4.6.70 If indirect drainage impacts are fully realised out to 10 m in all blanket bog and wet modified bog areas, then predicted losses for permanent infrastructure include an additional 8.8 ha for blanket bog and 6.4 ha for wet modified bog. As per **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI** the majority of potential indirect losses on blanket bog would be in Section 4 (7.06 ha, or 80% of the total indirect blanket bog loss), with much smaller

⁶⁷ Landry, J. & Rochefort, L. (2012). The Drainage of Peatlands: Impacts and Rewetting Techniques. Peatland Ecology Research Group, Université Laval, Quebec.

⁶⁸ Nayak, R.A., Miller, D., Nolan, A., Smith, P., Smith, J. (2008). Calculating carbon savings from wind farms on Scottish peat lands - A New Approach.

losses on Sections 1, 2, 3, and 5, with no predicted indirect losses in Sections 0 and 6. With respect to wet modified bog, 2.42 ha (38%) of losses are predicted within Section 3 and 2.11 ha (33%) of losses are predicted within Section 1. There are further small losses predicted in Sections 2, 4 and 5, with no indirect wet modified bog losses in Sections 0 and 6.

- 4.6.71 This worst-case scenario of direct and indirect habitat loss is a total of 45.53 ha or 6.67 % of the study area for blanket bog and 28.63 ha or 9.05 % of the study area for wet modified bog. For this blanket mire resource as a whole, i.e., combining blanket bog and wet modified bog, direct and indirect losses amount to 74.15 ha or 7.42 % of the combined resource within the respective study area.
- 4.6.72 It is considered unlikely that indirect drainage impacts of this scale (i.e., out to 10 m either side of infrastructure) would occur or would have such an effect on the habitat as to result in any notable effect on the type of bog present or shifts to a lower conservation value habitat type (such as acid grassland for example). For instance, Stewart & Lance (1991)⁶⁹ in their study found that a lowering of the water table next to drains was slight and confined to just a few metres either side of the drain, on sloping ground the uphill zone of drawdown was even narrower. Subtle variations in plant species abundance were noted, with species dependent on high water-tables having a lower cover-abundance near to drains, and species with drier heathland affinities having higher cover than at places farther away. However, there were no wholesale changes in vegetation or the species assemblage; for instance, declines in *Sphagna* cover were highly localised and took nearly 20 years to achieve statistical significance.
- 4.6.73 Overall, evidence suggests that if some drainage impacts materialise locally around infrastructure due to the Proposed Development the most likely effect would not be a major change in overall bog habitat type but rather a potential change in vegetation micro-topography, certain species cover, or abundance that may result in a subtle NVC community or sub-community shift, and which may only be apparent in the long term. If severe indirect drying impacts are observed long term, then wet modified bog/blanket bog may transition to wet heath (e.g., NVC type M15), dry modified bog, or dry heath. Wet and dry heaths are still habitats of conservation interest, being Annex I, UKBAP and SBL Priority Habitats also.
- 4.6.74 When considering the scale of the above habitat losses (i.e., direct and indirect impacts on up to 7.42 % of the combined blanket bog and wet modified bog within the study area), and accounting for the relative abundance, distribution and quality of the wet modified bog and blanket bog present, an impact magnitude of **Low Spatial** and **Long-Term/Permanent Temporal** is appropriate.
- 4.6.75 **Significance of Effect:** Given the above consideration of nature conservation value, conservation status and magnitude of impact, the effect is considered to be **Minor Adverse** and **Not Significant** under the terms of the EIA Regulations.

Wet Dwarf Shrub Heath

- 4.6.76 **Impact:** Impacts are the same as those discussed for blanket bog and wet modified bog in **paragraph 4.6.57**; direct and indirect loss of habitat resulting in a reduction in the extent and distribution of this habitat.
- 4.6.77 Due to their connectivity, habitat fragmentation impacts are considered above for both blanket bog and wet heath. The same conclusion applies here that it is unlikely the potential impact of fragmentation would lead to further loss of blanket bog and wet heath in addition to that predicted to occur as a result of direct loss and precautionary indirect loss figures.

⁶⁹ Stewart, A.J.A. & Lance, A.N. (1991). Effects of Moor Draining on the Hydrology and Vegetation of Northern Pennine Blanket Bog. *Journal of Applied Ecology* 28: 1105-1117.

- 4.6.78 **Importance of Ecological Feature: Local** (as assessed in **Table V2-4.4: Summary of Important Ecological Features**).
- 4.6.79 **Conservation Status:** Conservation Status of this habitat as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive on Northern Atlantic wet heaths with *Erica tetralix* is 'Unfavourable - Bad' and 'Deteriorating' at the UK level⁵³.
- 4.6.80 However, the Conservation Status of wet heath within the study area is considered, for the most part, to more likely fall within one of the three 'Favourable' categories if compared to NatureScot site condition monitoring definitions and terminology⁶³ and depending on the area considered⁶⁴. This judgement is made as the M15 wet heath in the study area appears for the most part in good condition with an intact physical structure and with a characteristic species assemblage and composition. There is also a high frequency of good indicator species, a low cover or absence of negative indicator species (as per CSM guidance⁷⁰), generally low grazing/browsing impacts, and a lack of disturbance, burning and artificial drainage impacts.
- 4.6.81 **Impact Magnitude:** The UK has an estimated 508,817 ha of this wet heath type^{Error! Bookmark not defined.}. The majority, around 340,000 to 400,000 ha, is in Scotland⁷¹.
- 4.6.82 Wet heath covers 1825.75 ha (39.12 %) of the study area; the majority of which is M15b and M15c of similar quality and value (detailed in **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development**). The direct habitat loss for wet heath across the Proposed Development is predicted to be 131.79 ha due to permanent and temporary infrastructure (the per Section breakdown is also provided in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**). This table indicates that 39% (51.45 ha) of these losses are predicted to occur within Section 2 (largely due to the extensiveness of the underground cable working corridor through this habitat type, which is dominant in Section 2) and 45.94 ha (35%) of the losses are predicted to occur within Section 4 (this is a function of the long length of this Section, the permanent and temporary infrastructure requirements, and the abundance of this habitat type in this Section). Therefore, combined, Sections 2 and 4 account for 74% of the direct losses predicted on wet heath.
- 4.6.83 As described in **paragraph 4.6.694.6.69**, there may be some indirect losses because of the zone of drainage around permanent infrastructure. If indirect drainage impacts are fully realised out to 10 m in all wet heath areas, then predicted losses include an additional 37.24 ha for permanent infrastructure (29.60 ha, or 79% of which is predicted to occur in Section 4; see **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**).
- 4.6.84 This worst-case scenario of direct and indirect habitat loss is a total of 169.03 ha, or 9.26 %, of the study area for wet heath (the per Section breakdown is also provided in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**).
- 4.6.85 It is considered unlikely that indirect drainage impacts would have a significant effect on the wet heath present or result in large-scale vegetation shifts to a lower conservation value habitat type. If drainage impacts materialise then this could, depending on the degree of drying, result in some subtle shifts of community or vegetation type, and this would likely be shifts to other sub-communities within the M15 NVC community (e.g., from M15b to M15c or M15d) and may take many years to transition. In response to more severe drying effects then M15 wet heath would be expected over time to transition towards a dry heath community, such as H9, H10 and/or H12 dry heaths. For the purposes of the EIA, dry heath is considered to be of the same

⁷⁰ <https://data.jncc.gov.uk/data/78aaef0b-00ef-461d-ba71-cf81a8c28fe3/CSM-UplandHabitats-2009.pdf>

⁷¹ <https://jncc.gov.uk/jncc-assets/Art17/H4010-SC-Habitats-Directive-Art17-2019.pdf> [Accessed March 2022].

conservation value, and therefore overall, it is unlikely there would be a decline in locally important habitat types due to any indirect drainage effects on wet heath.

- 4.6.86 When considering the above habitat loss, and accounting for the abundance, distribution and quality of the habitat within the study area as well as the wider area, an effect magnitude of **Low Spatial** and **Long-Term/Permanent Temporal** is appropriate.
- 4.6.87 **Significance of Effect:** Given the above consideration of nature conservation value, conservation status and magnitude of impact, the effect is considered to be **Minor Adverse** and **Not Significant** under the terms of the EIA Regulations.

Dry dwarf shrub heath

- 4.6.88 **Impact:** Direct loss of habitat resulting in a reduction in the extent and distribution of this habitat.
- 4.6.89 Fragmentation effects are considered unlikely for dry heath due to the negligible hydrological interference from infrastructure.
- 4.6.90 **Importance of Ecological Feature: Local** (as assessed in **Table V2-4.4: Summary of Important Ecological Features**).
- 4.6.91 **Conservation Status:** Conservation Status of this habitat as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive on European dry heath is assessed as 'Unfavourable Bad' and 'Improving' at the UK level⁵⁰.
- 4.6.92 However, the Conservation Status of dry heath within the study area is considered for the most part to more likely to fall within one of the three 'Favourable' categories if compared to NatureScot site condition monitoring definitions and terminology⁶³ and depending on the area considered⁶⁴. This judgement is made as the main prevailing dry heath communities in the study area (i.e., H10, H12 and H21) appear for the most part in good condition with an intact physical structure, lack of bare ground, and with a characteristic species assemblage and composition. There is also a good frequency and cover of the key dwarf shrub and lichen and bryophyte indicator species, a low cover or absence of negative indicator species and weeds (as per CSM guidance⁷⁰⁷⁰), generally low grazing/browsing impacts, and a lack of disturbance and burning impacts.
- 4.6.93 **Impact Magnitude:** The UK has an estimated area of 722, 298 ha of dry heath⁵⁰, of which 479,000 ha is in Scotland⁷².
- 4.6.94 Dry heath covers 144.31 ha (3.09 %) of the study area; the majority of this is H10, specifically the H10a Typical sub-community (detailed in **Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development**). The direct habitat loss for dry heath is predicted to be 10.1 ha, or 7.00 % of dry heath in the study area (the per Section breakdown is also provided in **Table V2-4.5: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**). This table indicates that there are relatively small losses to this habitat type in all Sections of the Proposed Development, with the larger relative losses occurring in Section 2 (2.71 ha, or 27%), Section 6 (2.54 ha, or 25%) and Section 4 (2.35 ha, or 23%).
- 4.6.95 When considering the loss of habitat, and accounting for the abundance, distribution and quality of the habitat within the study area as well as the wider area, an impact magnitude of **Low Spatial** and **Long-Term/Permanent Temporal** is appropriate.

⁷² <https://jncc.gov.uk/jncc-assets/Art17/H4030-SC-Habitats-Directive-Art17-2019.pdf>

4.6.96 **Significance of Effect:** Taking into account dry heath's conservation status, Local importance and magnitude of impact, the effect is considered to be **Minor Adverse** and **Not Significant** under the terms of the EIA Regulations.

Otter

4.6.97 Otter is a European Protected Species and a qualifying species of the Kinloch and Kyleakin Hills SAC and SSSI designated sites.

4.6.98 **Impact:** Construction of infrastructure in the vicinity of watercourses or waterbodies, in particular the construction of temporary and permanent watercourse crossings for access tracks. Impacts would be related to vehicle movements (general site vehicles, and helicopter presence for tower construction within the SAC), noise, vibrations, light spill, and an increase in human presence in the vicinity of watercourses or waterbodies which could cause direct injury or death, or disturbance. Disturbance could cause temporary loss and fragmentation of foraging or commuting habitat (including temporary reduction in the extent of SAC and SSSI habitat for use by otter), and avoidance of key places of shelter (which could result in abandonment of dependent young). As described previously, predicted impacts through pollution of watercourses are considered unlikely due to compliance with standard mitigation and the CEMP / GEMP (**Appendix V1-3.9: Outline Construction Environmental Management Plan** and **Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**). No direct loss of important otter habitat or protected features is expected.

4.6.99 Further detail regarding predicted impacts on otter are included within **Appendix V2-4.7 Section 3 Kinloch and Kyleakin Hills Special Area of Conservation. Shadow Habitats Regulations Appraisal.**

4.6.100 **Importance of Ecological Feature: Regional** (as determined in **Table V2-4.4: Summary of Important Ecological Features**).

4.6.101 **Conservation Status:** Conservation Status of otter as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive is assessed as 'Favourable' and 'Stable' at the UK level⁷³. Scotland is a European stronghold for otter and the species is now widespread over the whole of the country, with the coast and islands of western Scotland particularly important for this species⁷⁴. SACs, including Kinloch and Kyleakin Hills SAC, were designated due to good suitable habitat and strong otter populations, with the wider countryside generally having a lower level of occupancy than SAC sites for where the otter is designated⁷⁴.

4.6.102 **Impact Magnitude:** Desk study and field survey results indicate otter activity throughout the study area, including at least six potential holts (all within Section 3, four of which are within the Kinloch and Kyleakin Hills SAC and SSSI) and nine potential couches (one in Section 0, one in Section 1, and seven within Section 3, all in the Kinloch and Kyleakin Hills SAC and SSSI). Results indicate that the coastal habitat in Section 3, which forms part of the Kinloch and Kyleakin Hills SAC and SSSI sites, in particular provides important habitat for resting and foraging for the species.

4.6.103 Disturbance could impact one couch within 30 m, and six holts within 200 m (if used for breeding) (all within Section 3, with one couch and four holts within the Kinloch and Kyleakin Hills SAC and SSSI). No holts are within 30 m of new infrastructure, although one potential holt is within 30 m of the existing OHL tower which would be re-used at the existing Kyle Rhea crossing (protected features shown on **Figure V2-4.4C: Confidential Protected Species Survey Results**).

⁷³ <https://jncc.gov.uk/jncc-assets/Art17/S1355-UK-Habitats-Directive-Art17-2019.pdf>

⁷⁴ Scottish Natural Heritage (2015). Trend Note: Trends of otter in Scotland.

4.6.104 In terms of disturbance within otter foraging and commuting habitat, this would most likely occur where crossings are proposed for temporary and permanent access tracks across watercourses that are connected to those where otter activity has been recorded, and include the following (shown on **Figure V2-4.4: Protected Species Survey Area and Results**):

- Section 0: no watercourse crossings required;
- Section 1: approximately three temporary crossings over watercourses which are connected to where otter spraint has been recorded;
- Section 2: approximately one temporary and one permanent crossings over watercourses which are connected to where otter spraint has been recorded. Otter activity has been recorded in the vicinity of works associated with the HDD crossing of the River Sligachan. Furthermore, the underground cable construction corridor runs adjacent to the Abhuinn Torra-mhichaig watercourse for some distance where spraint has been recorded;
- Section 3: approximately five temporary and five permanent crossings over watercourses which are connected to where otter activity has been recorded (of which one temporary and two permanent crossings are within the Kinloch and Kyleakin Hills SAC);
- Section 4: approximately one temporary and three permanent crossings over watercourses which are connected to where otter spraint has been recorded;
- Section 5: approximately two temporary crossings over watercourses which are connected to where otter spraint has been recorded; and
- Section 6: approximately two temporary crossings over watercourses which are connected to where otter spraint has been recorded;

4.6.105 Within the Kinloch and Kyleakin Hills SAC and SSSI, it is proposed that helicopters would be used for transporting materials and for tower construction. Otter utilising the SAC/SSSI and local area are predominately coastal based with most evidence recorded along the coast or within 50 m of the shoreline (**Figures V2-4.4: Protected Species Survey Area and Results and V2-4.4C: Confidential Protected Species Survey Results**). Helicopter flight paths are expected to be similar to those proposed for dismantling works (**Appendix V1-3.8: Dismantling Plan for the Existing OHL**) which have been designed to avoid the coastal zone where otter presence is more likely.

4.6.106 Disturbance impacts during construction would be localised and for a short period of time, rather than impacting the whole Site at once. The species is widespread in the area and there is extensive suitable habitat for resting, foraging and commuting in the vicinity.

4.6.107 When considering the above and accounting for the abundance and distribution of otter and habitat suitability within the study area as well as the wider area, an effect magnitude of **Low Spatial** and **Short-Term Temporal** is appropriate.

4.6.108 **Significance of effect:** Considering otter's conservation status, legal protection and magnitude of potential impact, the effect is considered to be **Minor Adverse** and **Not Significant** under the terms of the EIA Regulations.

Dismantling of the OHL

Predicted Impacts of Dismantling the OHL

4.6.109 Due to the proposed use of low impact methods and standard pollution management measures, adverse impacts (arising from dismantling the existing OHL) on the majority of IEFs are scoped out in **paragraphs 4.5.38 to paragraphs 4.5.43** above. The exception is potential for adverse impacts through disturbance of otter which is considered below.

4.6.110 Furthermore, the removal of the existing OHL and the natural regeneration of the existing wayleave would lead to beneficial effects on woodland features and associated biodiversity including:

- Kinloch and Kyleakin Hills SAC - western acidic oak woodland and mixed woodland on base-rich soils associated with rocky slopes;
- Kinloch and Kyleakin Hills SSSI - upland oak woodland and bryophyte and lichen assemblages;
- ancient woodland; and
- broadleaved semi-natural woodland.

Kinloch and Kyleakin Hills SAC – Western Acidic Oak Woodland

4.6.111 The existing OHL passes through the Kinloch and Kyleakin Hills SAC (and SSSI) for approximately 5.91 km, of which the majority (5.64 km) is from the Kyle Farm area to Rubha Buidhe. Here, it generally runs at low altitude parallel to the coast and through the lower slopes of the Mudalach woodlands, after which it crosses generally more open ground to the east of Allt Sròn an Tairbh before changing direction around Rubha Buidhe and then heading south to the Kyle Rhea crossing. An operational wayleave of typically 30 m is maintained through the woodland areas for the existing OHL which predominately passes through the qualifying habitat of western acidic oak woodland (mainly NVC communities of W17, with some mosaics of W17, W11 and/or W4⁷⁵), and through a short section (approximately 104 m) of mosaic coastal woodland by Sròn an Tairbh, 50% of which is W9 *Fraxinus excelsior* – *Sorbus aucuparia* – *Mercurialis perennis* woodland, i.e. woodland corresponding to ‘mixed woodland on base-rich soils associated with rocky slopes’ (priority habitat type), according to the NatureScot 2001 NVC data⁷⁵.

4.6.112 Given the time since the existing OHL was constructed, this wayleave is in places largely functioning as an artificial woodland glade habitat with associated flora and fauna. Glades are a key component of healthy woodlands; they are more open and with higher light levels and so support a range, and often greater diversity, of woodland plants, and they are often important areas for insects and birds. Naturally, woodland glades would be created by large trees falling and often kept open by grazing and trampling. Averis & James (2002)⁷⁵ noted many natural glades within the SAC and SSSI woodlands. In natural settings glades are dynamic, closing over time, as new ones form elsewhere. Averis & James (2002) considered the OHL wayleave to act as a glade, and they more generally noted Scottish wood ant (*Formica aquilonia*) colonies in the Mudalach woodlands. These are the only known records of wood ant on Skye and in the Hebrides⁷⁵Error! Bookmark not defined.,76,77.

4.6.113 Whilst the existing wayleave is likely to be functioning as a large artificial woodland glade habitat which has intrinsic ecological value, by removing the disturbance associated with maintaining the wayleave, the integrity of the woodland would be enhanced. Leaving the wayleave to regenerate naturally will facilitate a slower return to woodland in a more natural manner with trees over time finding the best areas for natural regeneration and woodland glade habitats being maintained instead by natural processes. The dismantling of the existing OHL can therefore be regarded as a potential beneficial impact on western acidic oak woodland and mixed woodland on base-rich soils associated with rocky slopes (i.e., W9).

4.6.114 **Impact:** Removal of the existing infrastructure and cessation of associated wayleave maintenance would have a potential beneficial impact on the SAC and SSSI through allowing regeneration of woodland, thereby increasing the extent and improving the quality of qualifying habitats including western acidic oak woodland and mixed woodland on base-rich soils associated with rocky slopes.

⁷⁵ Averis, A.B.G. & James, P. (2002). A Botanical Assessment for the Kinloch Hills Wilderness Forest Project, Isle of Skye, Scotland. Commissioned Report for Forestry Commission Scotland.

⁷⁶ <https://www.woodants.org.uk/species/scottishwoodant> [Accessed March 2022].

⁷⁷ <https://species.nbnatlas.org/species/NHMSYS0000875949> [Accessed March 2022].

4.6.115 **Importance of Ecological Feature:** International Importance (**Table V2-4.4: Summary of Important Ecological Features**).

4.6.116 **Conservation Status:** Conservation Status of western acidic oak woodland habitat at the UK level is assessed as 'Unfavourable Bad' and 'Stable'⁵². However, at the SAC level the feature condition status of 'Unfavourable Declining' with 'invasive species and overgrazing' noted as a 'negative pressures' reported on NatureScot's sitelink website⁵² (see also **Table V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features**). Conservation status of mixed woodland on base-rich soils associated with rocky slopes at the UK level is assessed as 'Unfavourable Bad' and 'Stable'⁷⁸. At the SAC level, the feature condition is assessed as 'Unfavourable Recovering', with the same pressures as noted above⁵².

4.6.117 **Impact Magnitude:** To quantify the potential beneficial impact, GIS analysis was undertaken using aerial imagery and available NVC data which apportioned the existing OHL within the SAC between the following Categories:

- Category A - Woodland habitat (wayleave visible): 1.349 km. Due to the clearly visible wayleave through the woodland, it is reasonable to assume that woodland has been felled and re-growth prevented by subsequent clearance.
- Category B - Scattered trees (wayleave unclear): 1.430 km. It is unclear whether felling has been required of scattered trees due to the lack of an obvious wayleave.
- Category C - Open ground (no wayleave): 3.127 km. It is unlikely that any felling has been required due to the lack of regenerating trees and largely open nature of the habitat.

4.6.118 Estimates of the potential woodland regeneration areas, following dismantling of the existing OHL, were generated using the estimated lengths in Categories A and B above, and are shown in **Table V2-4.10: Potential SAC Woodland Regeneration Following of Dismantling the Existing OHL**. Category C was discounted from the analysis as an area which is unlikely to have been affected by the existing OHL. A precautionary assumption of an existing 20 m wayleave width was assumed from measurements taken using GIS and aerial imagery.

Table V2-4.10: Potential SAC Woodland Regeneration Following of Dismantling the Existing OHL

Wayleave Category	Estimated Length (km)	Width (km)	Area (ha)
Category A	1.349	0.02	2.70
Category B	1.430	0.02	2.86
Total	2.779	-	5.56

4.6.119 It is estimated that the woodland regeneration would almost exclusively be western acidic oak woodland, given the adjacent prevailing NVC communities (W17, and lesser amounts of W11 and W4), with a small area of W9 regeneration (0.31 ha). Considering the likelihood of natural woodland regeneration (with no additional management such as bracken control) given the prevailing conditions, a lower estimate of western acidic oak woodland regeneration was calculated at 1.35 ha, with an upper estimate of 2.74 ha. For mixed woodland on base-rich soils associated with rocky slopes (NVC community W9), a lower estimate of 0.155 ha and upper estimate of 1.235 ha were calculated (refer to **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal** for more detail on the analysis method).

⁷⁸ <https://jncc.gov.uk/jncc-assets/Art17/H9180-UK-Habitats-Directive-Art17-2019.pdf>

4.6.120 Guidance advises that: ‘A site can be described as having a high degree of integrity where the inherent potential for meeting site conservation objectives is realised, the capacity for self-repair and self-renewal under dynamic conditions is maintained, and a minimum of external management support is required’⁷⁹. Leaving the wayleave to regenerate naturally would facilitate a slower return to woodland in a more natural manner with trees over time finding the best areas for natural regeneration and woodland glade habitats being maintained instead by natural processes. Therefore, although not quantifiable, the ecological integrity of the site would be improved through removal of management intervention that is currently necessary to maintain the wayleave, and would contribute to the beneficial impact. Furthermore, it is also implicitly assumed in this analysis that areas that do not regenerate do not contribute to the beneficial impact. This will lead to an under valuing of the benefit as some remaining open areas will function as natural woodland glades within the dynamic woodland complex.

4.6.121 The removal of the existing OHL and the natural regeneration of the existing wayleave would lead to beneficial effects on the conservation objectives of the qualifying features of western acidic oak woodland and mixed woodland on base-rich soils associated with rocky slopes. The primary conservation objective that would benefit is improvements to the ‘extent of habitat within the site’. This in turn leads to beneficial effects on the ‘distribution of habitat’, ‘structure and function’, ‘processes supporting the habitat’ and ‘distribution’ and viability of typical species’.

4.6.122 The effect magnitude is assessed as **Low Spatial** and **Permanent Temporal**.

4.6.123 **Significance of Effect: Minor to Moderate Beneficial** and **Significant** under the terms of the EIA Regulations.

Kinloch and Kyleakin Hills SSSI – Upland Oak Woodland and Lichen and Bryophyte Assemblage

4.6.124 **Impact:** Removal of the existing infrastructure and cessation of associated wayleave maintenance would have a potential beneficial impact on the SSSI through allowing regeneration of woodland, thereby increasing the extent and improving the ecological integrity of habitat including upland oak woodland, along with its associated biodiversity including lichen and bryophyte assemblages.

4.6.125 **Importance of Ecological Feature:** National Importance (**Table V2-4.4: Summary of Important Ecological Features**).

4.6.126 **Conservation Status:** Conservation Status of western acidic oak woodland habitat at the UK level is assessed as ‘Unfavourable Bad’ and ‘Stable’⁵². However, the Conservation Status of oak woodland at the SSSI site level is considered ‘Unfavourable Declining’ (see further information in **Table V2-4.8: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features**). The conservation status of the lichen assemblage is considered ‘Unfavourable declining’ and the bryophyte assemblage ‘Favourable declining’⁵⁷.

4.6.127 **Impact Magnitude:** Between 1.35 ha and 2.74 ha of oak woodland would be expected to regenerate and there would be an improvement in the integrity of the site due to the removal of active management within the wayleave area, as described in **paragraphs 4.6.117 to 4.6.121**. The effect magnitude is assessed as **Low Spatial** and **Permanent Temporal**.

4.6.128 **Significance of Effect:** Taking into account the conservation status of upland oak woodland and the lichen and bryophyte assemblages, their National importance and magnitude of impact, the effect is considered to be **Minor to Moderate Beneficial** and **Significant** under the terms of the EIA Regulations.

⁷⁹ European Commission (2018). Managing Natura 2000 Sites. The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC. ISBN 92-828-9048-1

Ancient Woodland

- 4.6.129 **Impact:** Removal of the existing infrastructure and cessation of associated wayleave maintenance would allow woodland regeneration.
- 4.6.130 **Importance of Ecological Feature: National** (as assessed in **Table V2-4.4: Summary of Important Ecological Features**).
- 4.6.131 **Conservation Status:** Conservation Status of this habitat as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive on Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles⁵⁰ is assessed as 'Unfavourable Bad' and 'Stable'⁵¹. However, the Conservation Status of woodlands within the study area is considered to be variable as described in **paragraph 4.6.44**.
- 4.6.132 **Impact Magnitude:** As for the SAC and SSSI woodland habitats, to quantify the potential beneficial impact, GIS analysis was undertaken using aerial imagery and available NVC data which apportioned the existing OHL within Ancient Woodland⁷ between the following Categories:
- Category A - Woodland habitat (wayleave visible): 2.026 km. Due to the clearly visible wayleave through the woodland, it is reasonable to assume that woodland has been felled and re-growth prevented by subsequent clearance.
 - Category B - Scattered trees (wayleave unclear): 0.91 km. It is unclear whether felling has been required of scattered trees due to the lack of an obvious wayleave.
 - Category C - Open ground (no wayleave): 5.345 km. It is unlikely that any felling has been required due to the lack of regenerating trees and largely open nature of the habitat.
- 4.6.133 Estimates of the potential woodland regeneration areas, following dismantling of the existing OHL, were generated using the estimated lengths in Categories A and B above, and are shown in **Table V2-4.11: Potential Ancient Woodland Regeneration Following Dismantling of the Existing OHL**. Category C was discounted from the analysis as an area which is unlikely to have been affected by the existing OHL. A precautionary assumption of an existing 20 m wayleave width was assumed from measurements taken using GIS and aerial imagery.

Table V2-4.11: Potential Ancient Woodland Regeneration Following Dismantling of the Existing OHL

Wayleave Category	Estimated Length (km)	Width (km)	Area (ha)
Category A	2.026	0.02	4.052
Category B	0.910	0.02	1.82
Total	2.936	-	5.872 ⁸⁰

- 4.6.134 A minimum of 2.03 ha (50% of Category A) and up to a maximum of 5.87 ha of wooded ancient woodland habitat is currently managed within the wayleave of the existing OHL (within Sections 4 and 5). By removing the periodic maintenance/clearance of trees within the wayleave following the dismantling of the OHL the trees would be allowed to mature and the overall habitat to restore. Leaving the wayleave to regenerate naturally would facilitate a slower return to woodland in a more natural manner with trees over time finding the best areas for natural regeneration. Therefore, although not quantifiable, the ecological integrity and resilience of the feature would be improved through removal of management intervention that is currently necessary to maintain the wayleave and would contribute to the beneficial impact. Furthermore, it is also implicitly assumed in this analysis that areas that do not regenerate do not contribute to the beneficial impact. This will lead to an under

⁸⁰ 2.81 ha (1.409 km length) of this woodland overlaps with Broadleaved semi-natural woodland discussed below.

valuing of the benefit as some remaining open areas will function as natural woodland glades within the dynamic ancient woodland complex.

4.6.135 The scale of this regeneration is uncertain however, and is dependent on natural processes, deer management and landowner decisions. While removal of the wayleave maintenance would be beneficial, the habitat may require ongoing management for successful ancient woodland restoration within these areas due to the quality, ecological complexity and sensitivity of the habitat, as detailed in the Woodland Trust's Practical Guidance for Ancient Woodland Restoration⁸¹.

4.6.136 The effect magnitude is assessed as **Low Spatial** and **Permanent Temporal**.

4.6.137 **Significance of Effect:** Taking into account the conservation status of ancient woodland, National importance and magnitude of impact, and a cautionary approach due to the uncertainty, the effect is considered to be **Minor to Moderate Beneficial** and **Significant** under the terms of the EIA Regulations.

Broadleaved Semi-Natural Woodland

4.6.138 **Impact:** Removal of the existing infrastructure and cessation of associated wayleave maintenance would allow woodland regeneration.

4.6.139 **Importance of Ecological Feature: Regional** (as determined in **Table V2-4.4: Summary of Important Ecological Features**).

4.6.140 **Conservation Status:** Conservation Status of this habitat as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive on Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles⁵⁰ is assessed as 'Unfavourable Bad' and 'Stable'⁵¹. However, the Conservation Status of woodlands within the study area is considered to be variable as described in **paragraph 4.6.52**.

4.6.141 **Impact Magnitude:** As for other woodland habitats, to quantify the potential beneficial impact, GIS analysis was undertaken using aerial imagery and available NVC data which apportioned the existing OHL within Phase 1 A1.1.1 Broadleaved semi-natural woodland between the following Categories:

- Category A - Woodland habitat (wayleave visible): 0.756 km. Due to the clearly visible wayleave through the woodland, it is reasonable to assume that woodland has been felled and re-growth prevented by subsequent clearance.
- Category B - Scattered trees (wayleave unclear): 1.310 km. It is unclear whether felling has been required of scattered trees due to the lack of an obvious wayleave.
- Category C - Open ground (no wayleave): 1.454 km. It is unlikely that any felling has been required due to the lack of regenerating trees and largely open nature of the habitat.

4.6.142 In addition, habitat along the route of the existing OHL that fell outside of the survey area, was also apportioned into the three categories above, with 0.244 km in Category A, and 4.119 km in Category C (none recorded in Category B).

4.6.143 Estimates of the potential woodland regeneration areas, following dismantling of the existing OHL, were generated using the estimated lengths in Categories A and B above, and are shown in **Table V2-4.12: Potential Broadleaved Woodland Regeneration Following Dismantling of the Existing OHL**. Category C was discounted from the analysis as an area which is unlikely to have been affected by the existing OHL. A

⁸¹ <https://www.woodlandtrust.org.uk/protecting-trees-and-woods/ancient-woodland-restoration/how-we-restore-ancient-woodland/>

precautionary assumption of an existing 20 m wayleave width was assumed from measurements taken using GIS and aerial imagery.

Table V2-4.12: Potential Broadleaved Woodland Regeneration Following Dismantling of the Existing OHL

Wayleave Category	Estimated Length (km)	Width (km)	Area (ha)
Category A	1	0.02	2
Category B	1.31	0.02	2.62
Total	2.31	-	4.62 ⁸²

4.6.144 A minimum of 1 ha (50% of Category A) and up to a maximum of 4.62 ha of broadleaved semi-natural habitat is currently managed within the wayleave of the existing OHL, predominantly within Sections 4 and 5. By removing the periodic maintenance/clearance of trees within the wayleave following the dismantling of the OHL the species would be allowed to mature and the overall habitat to restore. Leaving the wayleave to regenerate naturally would facilitate a slower return to woodland in a more natural manner with trees over time finding the best areas for natural regeneration. Although not quantifiable, the ecological integrity and resilience of the feature would be improved through removal of management intervention that is currently necessary to main the wayleave and would contribute to the beneficial impact. Furthermore, it is also implicitly assumed in this analysis that areas that do not regenerate do not contribute to the beneficial impact. This will lead to an under valuing of the benefit as some remaining open areas will function as natural woodland glades within the dynamic ancient woodland complex.

4.6.145 The scale of this regeneration is uncertain and is dependent on natural processes, deer management and landowner decisions. Given the scale of the impact and the length of time it would take to come into effect, the magnitude is assessed as **Low Spatial** and **Permanent Temporal**.

4.6.146 **Significance of Effect:** Taking into account the conservation status of semi-natural woodland, Regional importance and magnitude of impact, and a cautionary approach due to the uncertainty, the effect is considered to be **Minor Beneficial** and **Not Significant** under the terms of the EIA Regulations.

Otter

4.6.147 **Impact:** Removal of the existing infrastructure in the vicinity of watercourses or waterbodies. Impacts would be related to helicopter use, vehicle movements (general site vehicles, and helicopter presence for tower removal within the SAC), noise, vibrations, light spill, and an increase in human presence in the vicinity of watercourses or waterbodies which could cause direct injury or death, or disturbance. Disturbance could cause temporary loss and fragmentation of foraging or commuting habitat (including temporary reduction in the extent of SAC and SSSI habitat for use by otter), and avoidance of key places of shelter (which could result in abandonment of dependent young).

4.6.148 **Importance of Ecological Feature: Regional** (as determined in **Table V2-4.4: Summary of Important Ecological Features**).

4.6.149 **Conservation Status:** Conservation Status of otter as assessed in the 2019 JNCC report by the UK under Article 17 of the Habitats Directive is assessed as 'Favourable' and 'Stable' at the UK level⁷³. Scotland is a European stronghold for otter and the species is now widespread over the whole of the country, with the coast and islands of western Scotland particularly important for this species⁷⁴. SACs, including Kinloch and Kyleakin

⁸² 2.81 ha (1.409 km length) of this woodland overlaps with the Ancient woodland habitat discussed above.

Hills SAC, were designated due to good suitable habitat and strong otter populations, with the wider countryside generally having a lower level of occupancy than SAC sites for where the otter is designated⁷⁴.

4.6.150 **Impact Magnitude:** The nature of dismantling works, will be of shorter duration, unintrusive, with less operative and plant requirements, and fewer possible sources of disturbance than for construction of the Proposed Development (see also **Appendix V1-3.8: Dismantling Plan for the Existing OHL**). Along the majority of the existing OHL, disturbance to the species is likely to be minimal. Six potential otter holts, that are within 200 m of the existing OHL and one potential otter couch within 30 m (all within Section 3), have the potential to be disturbed during the dismantling works. All but two of the potential resting sites are within the Kinloch and Kyleakin Hills SAC and SSSI.

4.6.151 Within the Kinloch and Kyleakin Hills SAC and SSSI, helicopters will be used for tower dismantling. The existing OHL is closer to the coastal zone than the Proposed Development and therefore is generally located closer to otter activity and protected features found during surveys. Helicopters will be used for short periods of time and the helicopter flight paths proposed in dismantling works have been designed to avoid the coastal zone where otter presence is more likely. As shown in **Plate 1.1 of Appendix V1-3.8: Dismantling Plan for the Existing OHL**, the flight path from each existing tower is initially southwest, uphill and away from the coastal zone before heading west to an identified laydown area outwith the SAC by Kyle Farm where tower sections will be broken down further before removal to a recycling facility. The dismantling works will also not alter the distribution or extent of the habitats supporting otter.

4.6.152 Disturbance impacts during construction would be localised and for a short period of time, rather than impacting the whole existing OHL at once. The species is widespread in the area and there is extensive suitable habitat for resting, foraging and commuting in the vicinity.

4.6.153 When considering the above and accounting for the abundance and distribution of otter and habitat suitability within the study area as well as the wider area, an effect magnitude of **Low Spatial** and **Short-Term Temporal** is appropriate.

4.6.154 **Significance of Effect:** Considering otter's conservation status, legal protection and magnitude of potential impact, the effect is considered to be **Minor Adverse** and **Not Significant** under the terms of the EIA Regulations.

Operational Impacts

4.6.155 This part of the Chapter provides an assessment of the predicted effects from the operation of the Proposed Development upon the scoped-in IEFs. In some parts, the OHL broadly follows the existing OHL and therefore many predicted impacts on ecological features associated with operation of the OHL are already experienced by the species and habitats in the area (as can be seen on **Figures V2-4.3: National Vegetation Classification Survey Area and Results** and **V2-4.4: Protected Species Survey Area and Results**).

Predicted Operational Impacts

4.6.156 Although much of the predicted habitat loss is associated with infrastructure required for the operation of the Proposed Development (rather than temporary construction infrastructure), the physical loss or modification of habitat would occur during the construction period and therefore all likely direct and indirect impacts on habitats have been considered in **Predicted Construction Impacts** above.

4.6.157 Indirect impacts on wetland habitats would largely occur during the operational period as potential drying effects take effect. However, for ease and clarity of assessing effects on habitats these have been considered within **Predicted Construction Impacts**.

4.6.158 The requirement to maintain an operational wayleave could give rise to further impacts on woodland habitats. The implications for the relevant IEFs are detailed below.

Kinloch and Kyleakin Hills SAC and SSSI – Western Acidic Oak Woodland

4.6.159 **Impact:** Habitat loss and modification through crown reduction of the woodland canopy.

4.6.160 During the operational period, trees underneath and immediately adjacent to the OHL which are outwith the required electric safety clearance zone of 3.5 m from conductors would not be felled or lopped, i.e., trees can grow freely vertically or horizontally to within 3.5 m of a conductor before it becomes a safety issue. Should trees encroach within the 3.5 m safe electrical clearance zone of the conductors, then there would be a requirement for maintenance and the possible cutting back or crown reduction of some of the trees/branches.

4.6.161 It is important to note that the electric safety clearance distance of 3.5 m is not directly related to the height of the tree itself but rather the distance between the tree and the OHL conductors, therefore depending on prevailing terrain and subsequently the height that the conductors are above ground level, the maximum tree height allowed underneath the OHL would be variable, and in some areas may allow for full height mature or semi-mature trees to develop. For instance, where the OHL passes over deep gullies, ravines or depressions, trees below may grow unhindered to normal climax community heights for the area due to the distance between the OHL and ground, whereas in flatter terrain or where the OHL passes over localised hummocks or high points the tree heights may naturally encroach within electric safety clearance zone and require maintenance. Therefore, allowable tree heights under the OHL are likely to vary along the route of the alignment.

4.6.162 A total of two locations where some form of woodland treatment would be required within the next four years (from the date of assessment in 2022) have been recorded (see **Volume 2, Chapter 9: Forestry**). Crown reduction is required at these two locations and these are considered within the assessment of construction impacts above. These areas are not considered further here to avoid 'double-counting' impacts that have been considered already. One additional location of 0.1 ha is predicted where no crown reduction is required during construction but may potentially be required during the operational period – this identified impact is considered in this part of the Chapter.

4.6.163 In addition to the above impact, there is also potential future crown reduction impacts that would occur as a result of regenerating woodland encroaching on the 3.5 m safe electrical clearance zone. These impacts are uncertain and dependent on the success of the SFA Natural Regeneration Areas as shown in **Figure 3 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal** and are considered below (**Part 4.7 Assessment of Predicted Cumulative Effects**).

4.6.164 **Importance of Ecological Feature:** The western acidic oak woodland feature of Kinloch and Kyleakin Hills SAC and SSSI is considered an Ecological Feature of **International** Importance (**Table V2-4.4: Summary of Important Ecological Features**).

4.6.165 **Conservation Status:** Conservation Status of western acidic oak woodland habitat at the UK level is assessed as 'Unfavourable Bad' and 'Stable'⁵². However, at the SAC and SSSI level the feature condition status of 'Unfavourable Declining' with 'invasive species and overgrazing' noted as negative pressures, is reported on NatureScot's sitelink website⁴⁸.

4.6.166 **Impact Magnitude:** The modification of one isolated riparian area on the Allt na Plaide and located just east of proposed tower BF56 equalling 0.1 ha, would likely to give rise to an impact magnitude of **Negligible to Low Spatial** and **Long-Term Temporal**. This impact is uncertain due to difficulties in predicting future growth rates of trees in this location as is further described in **Section 8.5.1.2 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**. This impact potentially will

give rise to an adverse effect to the conservation objective of the 'long-term maintenance of the structure and function of the habitat'. This primary effect leads on to secondary effects on the related conservation objectives of: processes supporting the habitat and, viability and disturbance to typical species (bryophytes and lichens).

4.6.167 **Significance of Effect:** Taking into account the conservation status of the qualifying feature of western acidic oak woodland of the SAC, its international importance and magnitude of impact, and a precautionary approach due to the uncertainty, the effect is considered to be **Minor to Moderate** and **Significant** under the terms of the EIA Regulations.

Kinloch and Kyleakin Hills SSSI – Upland Oak Woodland and Lichen and Bryophyte Assemblages

4.6.168 **Impact:** As described above for Kinloch and Kyleakin Hills SAC – Western Acidic Oak Woodland.

4.6.169 Undertaking crown reduction in one area of woodland (**Volume 2, Chapter 9: Forestry**), which would be an ongoing and periodic requirement, during the operational period may have negative habitat modification effects on the associated upland oak woodland and effects on lichen and bryophyte assemblages. As discussed above, crown reduction would require the physical removal of sections of the upper tree. In a dense woodland habitat this could in turn modify the levels of shade, light and heat penetration and subsequently may affect the microclimate and humidity within the tree canopy and on the woodland floor. With increasing light penetration and reduced humidity and moisture, the oceanic woodland bryophytes and lichens that rely on these conditions, may be negatively affected. Due to the scattered nature of trees at this location it is considered that such microclimate effects would be minimal (further detail provided in **Section 8.5.1.2 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**).

4.6.170 **Importance of Ecological Feature:** Upland oak woodland and Lichen and Bryophyte Assemblage are considered to be Ecological Features of **National** Importance (**Table V2-4.4: Summary of Important Ecological Features**).

4.6.171 **Conservation Status:** The Conservation Status of western acidic oak woodland habitat at the UK level is assessed as 'Unfavourable Bad' and 'Stable'⁵². However, the Conservation Status of oak woodland at the SSSI site level is considered Unfavourable Declining. The Conservation Status of the lichen assemblage is considered Unfavourable declining and the bryophyte assemblage Favourable declining⁵⁷. Forestry operations, rhododendrons and under grazing are noted as 'negative pressures'.

4.6.172 **Impact Magnitude:** The modification of one isolated low density woodland areas, would likely to give rise to an impact magnitude of **Negligible to Low Spatial** and **Long-Term Temporal**. This impact is uncertain due to difficulties in predicting future growth rates of trees in this location as is further described in **Section 8.5.1.2 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**.

4.6.173 **Significance of Effect:** Taking into account the conservation statuses of the notified features of upland oak woodland and the Lichen and Bryophyte Assemblage of the SSSI, their national importance and magnitude of impact, and a precautionary approach due to the uncertainty, the effect is considered to be **Minor to Moderate** and **Significant** under the terms of the EIA Regulations.

4.7 Assessment of Predicted Cumulative Effects

4.7.1 With regard to the EIA, the primary concern regarding the assessment of cumulative impacts is to identify situations where impacts on habitats or species populations that may be non-significant from individual developments, are judged to be significant when their impact is combined with nearby existing or proposed projects that are subject to an EIA process. In the interests of focusing on the potential for similar significant

impacts, this assessment considers the potential for cumulative effects with other EIA projects involving similar construction methods and associated impacts, including those developments that are under construction, consented or at application stage (built / operational developments are part of the existing baseline conditions and are not considered further). Developments at scoping or pre-application stage are normally scoped out of the cumulative assessment because they generally do not have sufficient information on potential effects to be included, as the baseline survey period is ongoing, or results have not been published. Projects that have been refused or withdrawn are also scoped out of the cumulative assessment.

4.7.2 Six proposed EIA projects/developments were identified in proximity to the Proposed Development as follows:

- Broadford Substation Extension – pre-application stage (22/03292/PAN);
- Edinbane Substation Extension – pre-application stage (22/03176/PAN);
- Glen Ullinish Wind Farm/Glen Ullinish II Wind Farm - planning consent granted for 14 wind turbines (14/03964/FUL) with a variation application (20/01129/S42) for 11 larger turbines granted in December 2021. Project unbuilt and now subject to expansion and re-design proposal which would replace the existing consented project with potentially up to 59 wind turbines. If successful, the project is to be known as Glen Ullinish II Wind Farm (22/01468/SCOP);
- Quoich Tee Switching Station Upgrade – pre-application stage;
- Coire Glas Pumped Storage Grid Connection – pre-application stage; and
- Loch Lundie Substation – pre-application stage.

4.7.3 Although the Broadford Substation Extension and Edinbane Substation Extension developments are at the pre-application stage they are closely linked to the Proposed Development and are being developed by the Applicant, despite not forming part of the section 37 application for this electricity transmission project. Similarly, Quoich Tee Switching Station Upgrade, Coire Glas Pumped Storage Grid Connection, and Loch Lundie Substation are being developed by SSEN (the Applicant). Therefore, more details are known for these proposed developments than would be the case with other projects at scoping or not yet at the application submitted stage. Consequently, in this case, it is possible to consider the potential cumulative effects associated with these pre-application projects.

4.7.4 The Broadford Substation Extension seeks to extend the current footprint of the existing Broadford Substation location to accommodate a platform area, indoor switching stations and substation buildings, associated plant and infrastructure, ancillary facilities, laydown area(s) and landscaping works. The 1.69 ha (approximately) of additional permanent land take required for these works would result in approximate habitat losses as follows (Phase 1 codes in brackets): 1.38 ha of commercial conifer plantation (A1.2.2); 0.12 ha of marshy grassland (B5); 0.10 ha of semi-natural broadleaved woodland (A1.1.1) and scattered broadleaved trees (A3.1); 0.08 ha of wet modified bog (E1.7); 0.01 ha of dense/continuous scrub (A2.1); with remaining minor habitat losses comprising less than 0.001 ha for each of the following habitats, blanket bog (E1.6.1), acid/neutral flush (E2.1), acid grassland (B1.1), and bracken (C1.1).

4.7.5 The Edinbane Substation Extension seeks to extend the current footprint of the existing Edinbane Substation location to accommodate a platform area, indoor switching stations and substation buildings, associated plant and infrastructure, ancillary facilities, laydown area(s) and landscaping works. The 2.27 ha (approximately) of additional permanent land take required for these works will result in approximate habitat losses as follows (Phase 1 codes in brackets): 1.56 ha of marshy grassland (B5); 0.24 ha of acid grassland (B1.1); 0.20 ha of wet dwarf shrub heath; 0.16 ha of acid/neutral flush (E2.1); and 0.12 ha of wet modified bog (E1.7).

4.7.6 The Coire Glas Pumped Storage Grid Connection project is required to connect Coire Glas Pumped Hydro Scheme (located southwest of Laggan Locks) to the existing Fort Augustus Substation at Auchterawe. The project would involve the installation of approximately 3.5 km of 400 kV OHL using steel lattice towers from Coire Glas switching station to a proposed new substation located in the vicinity of Loch Lundie (see also

paragraph 4.7.7 below) and approximately 8.5 km of 400 kV of OHL using steel lattice towers between the proposed Loch Lundie Substation to the existing Fort Augustus Substation. The planned connection date for the project is December 2027. The detailed design and proposed locations of steel lattice towers are not known at this stage, however the preferred alignment for the OHL⁸³ between Coire Glas switching station and Loch Lundie Substation would initially predominately pass-through commercial conifer plantation woodland from Coire Glas switching station to a point north of Faichem (i.e., habitat of low ecological and conservation value, and not an IEF), after which the OHL would run almost parallel to the final stretch of Section 5 of the Proposed Development and pass through a mosaic of mainly wet heath and blanket bog habitats (as mapped during NVC surveys for the Proposed Development). Of the approximate 8.5 km of preferred alignment for the OHL between Loch Lundie Substation and Fort Augustus Substation, approximately 6.25 km passes through commercial conifer plantation woodland or clear-fell (i.e., not IEFs). The remaining 2.25 km of proposed OHL appears to predominately pass through a mosaic of wet heath and blanket bog habitats and a smaller area of broadleaved woodland west of Doire nan Duilleag.

- 4.7.7 The proposed Loch Lundie Substation development is a requirement for the construction of a new 400 kV substation in the vicinity of Loch Lundie (located by the southern end of Section 6 of the Proposed Development) in association with the Coire Glas Pumped Storage Grid Connection project described above. Early proposals indicate that approximately 9.4 ha of permanent and temporary land-take may be required for the Loch Lundie Substation (comprising a control building, two transformers and outdoor Air Insulated Switching (AIS) equipment). The land-take area for Loch Lundie Substation is sited wholly within an area of commercial conifer plantation, i.e., a habitat of low ecological and conservation value, and not an IEF.
- 4.7.8 The Quoich Tee Switching Station Upgrade project is required as the existing switching station at Quoich Tee contains obsolete equipment that has reached the end of its capabilities. The project would include construction of a new switching station near the existing tee off, the installation of circuit breakers and replacement of the existing 132 kV switchgear, the diversion of existing overhead lines to the new switching station, and permanent access to the site. The proposed construction start date is April 2024. The land-take required for the new switching station area and new permanent access is indicatively around 0.86 ha and which is mainly comprised of wet heath and much smaller areas of bracken and broadleaved woodland.
- 4.7.9 Broadford and Edinbane Substation Extensions, Coire Glas Pumped Storage Grid Connection, Loch Lundie Substation, and Quoich Tee Switching Station Upgrade would all be developed by SSEN Transmission (i.e., the Applicant). Despite the relatively minor IEF habitat losses associated with Broadford and Edinbane Substation Extensions as noted above, and the likely small and minor future IEF habitat losses associated with Coire Glas Pumped Storage Grid Connection and Quoich Tee Switching Station Upgrade (no IEFs predicted to be affected by Loch Lundie Substation), the Applicant is committed to incorporating Biodiversity Net Gain (BNG) into their projects, which would include associated Habitat Management Plans (HMPs) or Long-Term Management Plans (LTMPs) for each of these aforementioned projects. With such minor IEF habitat losses, BNG commitments and proposals, and considering wider policy and legislative frameworks and requirements such as on woodland removal and compensatory planting, it is considered unlikely any significant adverse cumulative effects would arise from these projects in conjunction with the Proposed Development and therefore the Broadford and Edinbane Substation Extensions, Coire Glas Pumped Storage Grid Connection, Loch Lundie Substation, and Quoich Tee Switching Station Upgrade are scoped out of the cumulative assessment.
- 4.7.10 Baseline surveys undertaken in 2012 for Glen Ullinish Wind Farm recorded very low numbers of common pipistrelle bats and some field evidence of otter in the form of spraints and prints (no protected features recorded) on the River Ose. The habitat surveys indicated a typical upland assemblage for the area with a complex and mosaic mix of woodland, heath, flush/spring, mire, grassland, fern and swamp communities recorded in varying abundance, although M15 wet heath, M17/M19 blanket bog and U4/U5 acid grassland

⁸³ [https://www.ssen-transmission.co.uk/projects/coire-glas-connection-project/#:~:text=SSEN%20Transmission%20have%20received%20a,to%201500%20Megawatts%20\(MW\).](https://www.ssen-transmission.co.uk/projects/coire-glas-connection-project/#:~:text=SSEN%20Transmission%20have%20received%20a,to%201500%20Megawatts%20(MW).) [Accessed August 2022]

were most prevalent. No significant effects were predicted to arise and no non-standard mitigation nor HMP was proposed. As part of the Section 42 variation application some updated protected species and NVC/GWDTE surveys were undertaken at the site, these found no signs of otters or any protected species, and also stated the habitat had not changed significantly since the 2012 surveys.

- 4.7.11 Glen Ullinish II Wind Farm, which is the proposed expansion and re-design of Glen Ullinish Wind Farm, submitted a scoping application in March 2022. Ecology baseline surveys were scheduled to commence in spring 2022 and no surveys had been undertaken at the time of scoping submission. The majority of the application site has not previously been surveyed and therefore no baseline data exists, although it has been considered that the baseline conditions within the expanded application site area would be largely similar to the earlier 2012 and 2019 survey findings for the existing Glen Ullinish consent. The scoping report states mitigation will be agreed and put in place where effects are assessed as being significant. It further states where significant residual effects remain after the adoption of mitigation measures, compensatory measures will be provided; this could include replacement habitat, or habitat improvements which would offset the significant residual effects. It is intended there will also be plans for biodiversity enhancement and a detailed HMP associated with the development. Given these commitments to mitigation, compensation, biodiversity enhancement and a HMP, if the application should be successful then it is unlikely any significant adverse cumulative effects would arise, and consequently Glen Ullinish/Glen Ullinish II is scoped out from the cumulative assessment.
- 4.7.12 Based upon the discussion above, and also considering the significance of effects, embedded mitigation, additional mitigation, HMP, BNG and compensatory measures associated with the Proposed Development (see **Part 4.10**), no adverse (or negligible) cumulative impacts are predicted to arise due to the Proposed Development on scoped-in wider countryside IEFs.

Designated Sites

- 4.7.13 The consideration of in-combination effects of the Proposed Development on the Kinloch and Kyleakin Hills SAC with the effects of other plans and projects, under the Habitats Regulations, is detailed in **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**. It was concluded that there is potential for adverse in-combination effects on western acidic oak woodland connected to the SFA woodland expansion scheme. This would be through the prevention of expansion of woodland due to the requirement to retain tracks for the operational period and to maintain an operational wayleave through woodland expansion areas. This is detailed further below. No other in-combination effects with projects or qualifying features were identified. This cumulative effect would also be relevant for the corresponding SSSI.

Kinloch and Kyleakin Hills SAC – Western Acidic Oak Woodland

- 4.7.14 **Impact:** The extent, distribution and quality of future planned woodland expansion through planting and natural regeneration as part of the SFA woodland regeneration scheme would be reduced in a number of areas across the designated site where permanent infrastructure and the operational wayleave overlaps these target areas (see **Figure 3 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**). Trees underneath and in immediate proximity to the OHL which do not encroach within the 3.5 m electric safety clearance distance would not require felling or lopping and for much of the Proposed Development there is limited risk of trees encroaching within this distance from conductors.
- 4.7.15 **Importance of Ecological Feature: International Importance (Table V2-4.4: Summary of Important Ecological Features).**

- 4.7.16 **Conservation Status:** Detailed in **Table V2-4.6: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Within the Kinloch and Kyleakin Hills SAC and SSSI.**
- 4.7.17 **Impact Magnitude:** Detailed analysis for predicting the magnitude of the impact is provided within **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations.** Making precautionary assumptions on uncertainties in the analysis, estimated impact of the Proposed Development on the woodland expansion project would be 2.43 ha which represents 0.335% of the 724 ha woodland expansion area. Having regard to the relatively limited areas affected in the context of the total woodland expansion project area (planting areas and natural regeneration areas with the exception of the area west of Mudalach – **Figure 3 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**), it is considered that the Proposed Development would not prevent the woodland expansion project from improving the condition of the qualifying feature of western acidic oak woodland and achieving favourable conservation status.
- 4.7.18 When considering the above potential future habitat loss and modification, and accounting for the future abundance, distribution and quality of the habitat within the designated site as well as the wider area, an effect magnitude **Negligible-Low Spatial** and **Long-Term-Permanent Temporal** is appropriate.
- 4.7.19 **Significant Effect:** the effect is considered to be **Minor Adverse** and **Not Significant** under the terms of the EIA Regulations.

Kinloch and Kyleakin Hills SSSI – Upland Oak Woodland and Bryophyte and Lichen Assemblages

- 4.7.20 **Impact:** The extent, distribution and quality of future planned woodland expansion through planting and natural regeneration as part of the SFA woodland regeneration scheme would be reduced in a number of areas across the study area where permanent infrastructure and the operational wayleave overlaps these target areas (see **Figure 3 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**). This may also impact on the extent, distribution and quality of the future assemblages of bryophytes and lichens.
- 4.7.21 **Importance of Ecological Feature:** Upland oak woodland and Bryophyte and Lichen Assemblages are considered Ecological Features of **National** Importance (**Table V2-4.4: Summary of Important Ecological Features**).
- 4.7.22 **Conservation Status:** Conservation Status of western acidic oak woodland habitat at the UK level is as assessed as 'Unfavourable Bad' and 'Stable'⁵². However, the Conservation Status of oak woodland at the SSSI site level is considered Unfavourable Declining. The conservation status of the lichen assemblage is considered Unfavourable declining and the bryophyte assemblage Favourable declining⁵⁷. Forestry operations, rhododendrons and under grazing are noted as 'negative pressures'.
- 4.7.23 **Impact Magnitude:** The future habitat loss and modification for this IEF is uncertain and depends on the future success of the woodland planting and regeneration plans. Assuming future success of the plans, then 2.43 ha of loss and modification is likely due to crown reduction. This represents 0.335% of the 724 ha woodland expansion area. Having regard to the relatively limited areas affected in the context of the total woodland expansion project area (planting areas and natural regeneration areas with the exception of the failed planting area west of Mudalach – **Figure 3 of Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**), it is considered that the Proposed Development would not prevent the woodland expansion project from improving the condition of the qualifying feature of western acidic oak woodland and achieving favourable conservation status.
- 4.7.24 When considering the above potential future habitat loss and modification, and accounting for the abundance, distribution and quality of the upland oak woodland and Lichen and Bryophyte Assemblage within the study

area as well as the wider area, an effect magnitude of **Negligible to Low Spatial** and **Long-term-Permanent Temporal** is appropriate.

4.7.25 **Significance of Effect:** Taking into account upland oak woodland's conservation status, National importance and magnitude of impact, the effect is considered to be **Minor Adverse** and **Significant** under the terms of the EIA Regulations.

4.8 Mitigation

Construction Phase

4.8.1 A number of predicted impacts, on IEFs have been identified above. Several standard mitigation measures and mitigation plans would be put in place before, during, and following construction of the Proposed Development to reduce or avoid the predicted impacts on the IEFs, as detailed in **Embedded Mitigation**. Furthermore, good practice construction measures and further details on working methods, plant requirements, types of materials to be used, access and storage plans, defined working corridors, use of helicopters, reinstatement and restoration plans etc. would form part of the Principal Contractor's Construction Method Statement (CMS).

4.8.2 Habitat loss will be reduced where possible by micro-siting during the works. For example, loss of woodland habitat within the wayleave could potentially be further reduced through micro-siting where a combination of factors (e.g. topography, tower height, tree species and height) allow. The extent of tree clearance may be reduced where it can be demonstrated through further detailed survey that the trees can be safely overflown by the OHL conductors or that the trees can be accommodated within closer proximity to the Proposed Development with either no work being required, or a degree of crown reduction only. There may also be opportunities to further retain scrub/understorey layers in areas where existing tree cover does not breach safety clearances and allows for safe construction activity.

4.8.3 Additional mitigation, above that included as standard, includes an operational wayleave maintenance plan for the Kinloch and Kyleakin Hills SAC and SSSI, and the following mitigation for reducing impacts on bryophyte and lichen assemblages:

- avoiding direct damage to the Nationally Rare and Nationally Scarce bryophyte and lichen interest recorded during surveys within the Kinloch and Kyleakin Hills SAC and SSSI;
- retention of existing woodland and scrub habitats, and other scattered trees and willow bushes where feasible within the SAC / SSSI to maintain the bryophyte and lichen interest;
- a bryophyte and lichen specialist, or the ECoW (if suitably qualified), to re-visit the Nationally Rare and Nationally Scarce bryophyte and lichen target note locations considered at risk with the Principal Contractor in advance of construction, to demarcate the areas of interest and create an exclusion zone for ecological sensitivities. This demarcated area will be a minimum of 5 m around the feature, but preferably 10 m if possible;
- the bryophyte and lichen specialist to undertake further pre-construction checks for Nationally Rare or Nationally Scarce species within likely areas of interest within the proposed footprint of the Proposed Development and demarcate further populations if found;
- micro-siting of infrastructure within the LoD to avoid the demarcated and protected areas, with no works, or storage of spoil or materials, to take place within the demarcated and protected areas;
- regular monitoring of the features to ensure the mitigation measures are effective; and
- if it is not possible to micro-site or the feature is at risk, then further mitigation proposals and plans would be discussed and agreed with NatureScot in advance of construction occurring within the specific locality. This may include, but not be limited to, translocation proposals to nearby receptor sites with the same suite of environmental conditions, should the species be suitable for translocation. In the event such a measure is proposed, the proposals and plans would be prepared in conjunction with a bryophyte/lichen specialist and agreed with NatureScot.

4.8.4 To avoid and reduce impacts on otter, construction works would be carried out in line with a detailed otter SPP (**Appendix V1-3.5: General Environmental Management Plans (GEMPs) and Species Protection Plans (SPPs)**) which would ensure minimising disturbance to otter and compliance with species legislation through the following mitigation:

- Pre-construction surveys in suitable habitat within 200 m of works (to determine use of holts/couches and identify any new protected features or other habitat to the species such as feeding areas and freshwater pools);
- All works close to waterbodies and watercourses showing signs of regular use by otters should not take place at night or within 2 hours of sunset / sunrise, if possible (bearing in mind otter in coastal habitats are also active during daytime hours).
- Where works close to waterbodies and watercourses are required at night, lighting should be directed away from riparian areas.
- All works close to water courses and waterbodies must follow best practice measures to ensure their protection against pollution, silting and erosion.
- Any temporarily exposed pipe system should be capped when staff are off site to prevent otters from gaining access.
- All exposed trenches and holes should be provided with mammal exit ramps e.g., wooden planks or earth ramps when Contractors are off site.
- An emergency procedure should be implemented by site workers if otter / otter resting sites are unexpectedly encountered. All work within 30 m (100 m for high noise/vibration activities) or 200 m for breeding sites should cease until a suitably qualified and experienced ecologist has inspected the site and determined the appropriate course of action.
- Where resting sites are confirmed (either during pre-construction surveys or at any time during works), protection zones of either 30 m, 100 m (for high noise / vibration activities) or 200 m (confirmed breeding sites) should be marked appropriately to restrict work access.
- Site staff should be briefed of the purpose of the protection zones through a Toolbox Talk and works micro-sited outwith the protection zone.
- For any works required within 30 m of resting sites or 200 m of confirmed breeding sites, and for high noise / vibration activities such as pile driving or blasting within 100 m of resting sites, a licence from NatureScot would be required.
- The licence application would be accompanied by a Protection Plan which outlines how disturbance will be minimised and specific holts protected, for example through screening of works and modifying protection zones.

Dismantling of the Existing OHL

4.8.5 Potential effects on otter would be avoided or reduced through implementation of a SPP, as detailed in **paragraph 4.8.4**.

4.8.6 No mitigation is required for positive effects on the Kinloch and Kyleakin Hills SAC and SSSI, ancient woodland and broadleaved semi-natural woodland during dismantling of the existing OHL.

Operational Phase

4.8.7 No mitigation is proposed for the Operational Phase. Compensation and enhancement of habitats through the delivery of a HMP is described in **Part 4.10**.

4.9 Residual Effects

Construction

- 4.9.1 A summary of residual significant effects is provided in **Table V2-4.13: Summary of Predicted Impacts and Residual Effects**.
- 4.9.2 Kinloch and Kyleakin Hills SAC and SSSI: Although mitigation would reduce impacts, the construction phase of the Proposed Development would still result in a negative adverse impact on the extent of qualifying features and Notified Natural Features within the Kinloch and Kyleakin Hills SAC and SSSI sites, and therefore, due to their importance and conservation value, there would be a **Moderate Adverse Residual Significant Effect** on these designated sites in the absence of compensation.
- 4.9.3 Bryophyte and lichen assemblage of the Kinloch and Kyleakin Hills SSSI: Mitigation detailed for the bryophyte and lichen assemblage of the Kinloch and Kyleakin Hills SSSI would avoid predicted impacts on Nationally Rare and Nationally Scarce species and would reduce the impact on the wider oceanic assemblage of species. The residual effect is considered **Minor Adverse** and **Not Significant** taking into account the magnitude of reduced impact after mitigation.
- 4.9.4 Ancient Woodland: There is a **Moderate Adverse Residual Significant Effect** on ancient woodland, due to its irreplaceable value.
- 4.9.5 Habitat IEFs outwith SAC and SSSI: Residual effects of **Minor Adverse** and **Not Significant** are anticipated on broadleaved woodland and scattered trees, blanket bog, wet modified bog, wet heath and dry heath. The Applicant is committed to delivering a HMP for the Proposed Development, details of which will be provided and agreed upon with relevant consultees post-submission of the application and prior to construction commencing, secured by a condition of consent. The HMP would aim to deliver a net-beneficial impact on IEF habitats, outwith the Kinloch and Kyleakin Hills SAC / SSSI.
- 4.9.6 Otter: Residual effects of **Negligible** and **Not Significant** are predicted for otter. While the Proposed Development may impact a small number of individuals, with mitigation in place, effects are not considered to be at a level that would significantly affect the wider population or conservation status of the species, including the population within, and contributing to, the Kinloch and Kyleakin Hills SAC and SSSI.

Dismantling

- 4.9.7 Kinloch and Kyleakin Hills SAC and SSSI: Future regeneration of wayleave may have a **Minor to Moderate Beneficial and Significant Residual effect**.
- 4.9.8 Bryophyte and lichen assemblage of the Kinloch and Kyleakin Hills SSSI: Future regeneration of wayleave may have a **Minor to Moderate Beneficial and Significant Residual effect**.
- 4.9.9 Ancient Woodland: Future regeneration of wayleave may have a **Minor to Moderate Beneficial and Significant Residual effect**.
- 4.9.10 Broadleaved Semi-Natural Woodland: Future regeneration of wayleave may have a **Minor Beneficial and Not Significant Residual effect**.
- 4.9.11 Otter: Residual effects of **Negligible** and **Not Significant** are predicted for otter. While the Proposed Development may impact a small number of individuals, with mitigation in place, effects are not considered to be at a level that would significantly affect the wider population or conservation status of the species, including the population within, and contributing to, the Kinloch and Kyleakin Hills SAC and SSSI.

Operation

- 4.9.12 Kinloch and Kyleakin Hills SAC and SSSI: Potential operational habitat modification impacts of crown reduction may have a **Minor to Moderate Adverse and Significant Residual effect**.
- 4.9.13 Bryophyte and lichen assemblage of the Kinloch and Kyleakin Hills SSSI: Potential operational habitat modification impacts of crown reduction may have a **Minor to Moderate Adverse and Significant Residual effect**.

Cumulative

- 4.9.14 Kinloch and Kyleakin Hills SAC and SSSI: Potential cumulative impacts arising from possible future modification of regenerating woodland may have a **Minor Adverse and Not Significant Residual effect**.
- Bryophyte and lichen assemblage of the Kinloch and Kyleakin Hills SSSI: Potential cumulative impacts arising from possible future modification of regenerating woodland may have a **Minor Adverse and Not Significant Residual effect**.

4.10 Compensation for Significant Residual Effects*Designated Sites*

- 4.10.1 To compensate significant residual effects on the Kinloch and Kyleakin Hills SAC and SSSI habitats, a HMP would be developed for the relevant qualifying features affected. Compensation of an adverse effect on the integrity of the site is a requirement of the derogation process of the HRA and therefore detailed discussion is included in **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal**.
- 4.10.2 Preliminary analysis of possible compensation options and compensation areas indicate there are a number of potential options in and around, and contiguous with, the SAC for the four qualifying habitats predicted to be adversely affected by the Proposed Development. These include extension of the SAC to include further adjoining areas of existing qualifying habitat types, create or restore qualifying habitat types on non-designated land within or adjacent to the SAC and extend the SAC to cover these, and bracken control and management in the SAC and subsequent replanting and management for qualifying woodland. These possible compensation areas are located within the local FLS landownership boundary (i.e., the main landowner for the SAC). Initial, and ongoing, discussions with FLS on delivering compensation on FLS land adjoining the SAC has, in principle, been agreed to. A range of surveys are programmed to take place in 2022 in these compensation option areas in order to gather baseline information and assess further their suitability for delivering compensation for the relevant SAC qualifying habitats. With FLS agreements in place, this survey and assessment information will form part of a detailed compensation plan proposal on which NatureScot will be consulted throughout, to agree on compensation ratios, types of compensation for each habitat affected, and the detailed compensation area and associated management prescriptions and subsequent monitoring.

Habitat Management Plan

- 4.10.3 The Applicant is committed to delivering a HMP for the Proposed Development, details of which will be provided and agreed upon with relevant consultees post-submission of the application and prior to construction commencing, secured by a condition of consent.
- 4.10.4 Significant adverse effects through the loss of ancient woodland would be reduced through compensation planting, which in the long term would offset some of the impact on the structure and function of ancient woodland habitat. However, planting new areas would not fully compensate for the loss of ancient woodland due to the time required to develop its associated ecological complexity and biodiversity richness.

4.10.5 No significant effects were identified for all other IEF habitats outwith the SAC/SSSI (broadleaved woodland, blanket bog and wet modified bog, wet dwarf shrub heath and dry dwarf shrub heath). However, these habitats would be included in the HMP with the aim being to implement a plan for habitat creation, maintenance, restoration and/or enhancement that contributes to a greater area compared with the predicted area to be affected by the Proposed Development. The detailed HMP would be agreed with The Highland Council and NatureScot in advance of construction.

Biodiversity Net Gain

4.10.6 Biodiversity Net Gain (BNG) is a process which leaves nature in a better state. The Applicant is making a voluntary commitment to incorporate BNG into their projects. A BNG assessment will be completed prior to determination. This will quantify the potential biodiversity impacts for the Proposed Development and assess whether the Proposed Development would result in a net loss, no net loss or a net gain in biodiversity, considering the biodiversity within the Site after habitats are reinstated and the future management of the reinstated and created habitats.

4.11 Summary and Conclusions

4.11.1 **Table V2-4.13: Summary of Predicted Impacts and Residual Effects** provides a summary of the impacts and significance of effects on IEF from the Proposed Development.

Table V2-4.13: Summary of Predicted Impacts and Residual Effects

Important Ecological Feature	Nature Conservation Value / Importance	Predicted Impact	Impact Magnitude	Residual Significance of Effect (post-mitigation)
Construction				
Kinloch and Kyleakin Hills SAC Qualifying Habitats <ul style="list-style-type: none"> Western Acidic Oak Woodland Blanket Bog Wet Heathland with Cross-leaved Heath Dry Heaths 	International	Direct and indirect loss and modification of qualifying habitats as detailed in Table V2-4.6: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Within the Kinloch and Kyleakin Hills SAC and SSSI.	Low Spatial and Long-term/Permanent Temporal	Effect on SAC and four impacted qualifying habitats is all Moderate Adverse and Significant
Kinloch and Kyleakin Hills SSSI Notified Natural Features <ul style="list-style-type: none"> Upland Oak Woodland Blanket Bog Sub-alpine Wet Heath Sub-alpine Dry Heath 	National	Direct and indirect loss and modification of qualifying habitats as detailed in Table V2-4.6: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Within the Kinloch and Kyleakin Hills SAC and SSSI.	Low Spatial and Long-term/Permanent Temporal	Effect on SSSI and four impacted Notified Natural Features is all Moderate Adverse and Significant
Kinloch and Kyleakin Hills SSSI - Lichen & bryophyte assemblages	National	Direct loss of oceanic assemblages, including Nationally rare and scarce species.	Low to Moderate Spatial and Long-Term Temporal	Minor Adverse and Not Significant
Ancient woodland	National	Direct loss of habitat included on the AWI, resulting in a reduction in the extent and distribution of this habitat and associated rich biodiversity.	Low Spatial and Permanent Temporal	Moderate Adverse and Significant

Important Ecological Feature	Nature Conservation Value / Importance	Predicted Impact	Impact Magnitude	Residual Significance of Effect (post-mitigation)
Broadleaved semi-natural woodland and scattered broadleaved trees.	Regional	Direct loss of habitat resulting in a reduction in the extent and distribution of this habitat and associated rich biodiversity.	Low Spatial and Long-term/ Permanent Temporal	Minor Adverse and Not Significant
Blanket bog and wet modified bog	Regional	Direct and indirect loss of habitat resulting in a reduction in the extent and distribution of this habitat.	Low Spatial and Long-term/ Permanent Temporal	Minor Adverse and Not Significant
Wet heath	Local	Direct and indirect loss of habitat resulting in a reduction in the extent and distribution of this habitat.	Low Spatial and Long-term/ Permanent Temporal	Minor Adverse and Not Significant
Dry heath	Local	Direct loss of habitat resulting in a reduction in the extent and distribution of this habitat.	Low Spatial and Long-term/ Permanent Temporal	Minor Adverse and Not Significant
Otter	Regional	Disturbance, Injury, Death.	Low Spatial and Short-term Temporal	Negligible and Not Significant
Dismantling of the OHL				
Kinloch and Kyleakin Hills SAC - Western Acidic Oak Woodland	International	Removal of infrastructure and wayleave leading to regeneration of qualifying habitats.	Low Spatial and Permanent Temporal	Minor to Moderate Beneficial and Significant
Kinloch and Kyleakin Hills SSSI - Upland Oak Woodland and Lichen and Bryophyte Assemblages	National	Removal of infrastructure and wayleave leading to regeneration of qualifying habitats and reestablishment of qualifying assemblages.	Low Spatial and Permanent Temporal	Minor to Moderate Beneficial and Significant
Ancient woodland	National	Removal of infrastructure and wayleave leading to regeneration of woodland.	Low Spatial and Permanent Temporal	Minor to Moderate Beneficial and Significant
Broadleaved semi-natural woodland	Regional	Removal of infrastructure and wayleave leading to regeneration of woodland.	Low Spatial and Permanent Temporal	Minor Beneficial and Not Significant

Important Ecological Feature	Nature Conservation Value / Importance	Predicted Impact	Impact Magnitude	Residual Significance of Effect (post-mitigation)
Otter	Regional	Disturbance, Injury, Death	Low Spatial and Short-term Temporal	Negligible and Not Significant
Operation				
Kinloch and Kyleakin Hills SAC - Western Acidic Oak Woodland	International	Modification of qualifying habitat through crown reduction required to maintain an operational wayleave.	Negligible to Low Spatial and Long-Term/Permanent Temporal	Minor to Moderate Adverse and Significant
Kinloch and Kyleakin Hills SSSI – Upland Oak Woodland and Lichen and Bryophyte Assemblages	National	Modification of qualifying habitat and species through crown reduction required to maintain an operational wayleave.	Negligible to Low Spatial and Long-Term/Permanent Temporal	Minor to Moderate Adverse and Significant
Cumulative				
Kinloch and Kyleakin Hills SAC - Western Acidic Oak Woodland	International	Extent, quality and distribution of future SFA woodland expansion would be reduced where permanent infrastructure and operational wayleave overlaps target areas.	Negligible to Low Spatial and Long-Term/Permanent Temporal	Minor Adverse and Not Significant
Kinloch and Kyleakin Hills SSSI - Upland Oak Woodland and Lichen and Bryophyte Assemblages	National	Extent, quality and distribution of future SFA woodland expansion would be reduced where permanent infrastructure and operational wayleave overlaps target areas. Extent, quality and distribution of the future assemblages of bryophytes and lichens in relation to above.	Negligible to Low Spatial and Long-Term/Permanent Temporal	Minor Adverse and Not Significant

Annex A

Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development shows results for all habitat loss as part of the Proposed Development (not including habitats with the Kinloch and Kyleakin Hills SAC and SSSI) including direct loss, indirect loss (through drainage/drying impacts - only relevant to wetland habitats) and additional felling areas required for the wayleave (only relevant to woodland).

Direct loss has been processed to include: an 8 m corridor off new permanent and temporary access tracks and specific existing tracks that require more than minor upgrades; 50 m x 50 m tower construction compound areas; 50 m x 50 m HDD compound areas (two required at each HDD location, one either side of the watercourse); sealing end compounds (approximately 37 m x 45 m); and a 37.4 m corridor for underground cable sections (except approximately 1.8 km where the cable would run underneath the A87 in Section 2).

Indirect loss has first been processed as a 10 m buffer from the 2.5 m running width of permanent new tracks (22.5 m corridor) and sealing end compounds (the permanent 8 m corridor from the direct loss and the 50 m x 50 m tower construction compounds was removed and therefore not double counted in the calculations). There is very marginal double counting where the indirect loss buffer overlays the temporary features (tracks) from the direct footprint.

Wayleave calculations have been processed per Section using Felling and Crown Reduction shapefiles with the Direct loss features removed (as the habitat would already be lost due to direct loss for infrastructure rather than for wayleave requirements).

Table V2-4.14: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development

Phase 1 Description (Code)	NVC	EIA Study Area - All Sections (not including Kinloch and Kyleakin Hills SAC/SSSI)				Direct Loss		Indirect Loss		Wayleave felling
		Phase 1 Area (ha)	% of total Phase 1	NVC Area (ha)	% of Study Area	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)
Broadleaved Semi-Natural Woodland (A1.1.1)	W4	174.709	3.744	7.991	0.171	0.383	4.790	N/A	N/A	0.320
	W4a			0.108	0.002	0.000	0.000			0.000
	W4b			1.470	0.031	0.086	5.838			0.002
	W4c			0.860	0.018	0.007	0.812			0.003
	W7			0.997	0.021	0.022	2.253			0.003
	W7c			0.594	0.013	0.015	2.486			0.000
	W10			0.157	0.003	0.000	0.000			0.000
	W11			34.465	0.738	0.820	2.379			0.364
	W11a			4.655	0.100	0.006	0.122			0.000
	W11b			2.920	0.063	0.128	4.384			0.093
	W17			87.761	1.880	3.632	4.139			4.713

Phase 1 Description (Code)	NVC	EIA Study Area - All Sections (not including Kinloch and Kyleakin Hills SAC/SSSI)				Direct Loss		Indirect Loss		Wayleave felling
		Phase 1 Area (ha)	% of total Phase 1	NVC Area (ha)	% of Study Area	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)
	W17a			0.798	0.017	0.030	3.808			0.050
	W17b			31.831	0.682	1.575	4.949			0.946
	W17c			0.094	0.002	0.000	0.023			0.000
	W17d			0.008	0.000	0.000	0.000			0.000
Broadleaved Plantation Woodland (A1.1.2)	AG	6.682	0.143	0.759	0.016	0.019	2.559	N/A	N/A	0.058
	BP			0.001	0.000	0.000	0.000			0.000
	W17x			5.869	0.126	0.392	6.679			1.485
	YBP			0.053	0.001	0.000	0.000			0.000
Coniferous Semi-Natural Woodland (A1.2.1)	W18	2.554	0.055	2.554	0.055	0.010	0.380	N/A	N/A	0.168
Coniferous Plantation Woodland (A1.2.2)	CP	459.323	9.842	419.706	8.993	13.886	3.308	N/A	N/A	56.036
	YCP			39.617	0.849	2.291	5.782			6.772
Mixed Plantation Woodland (A1.3.2)	MP	9.066	0.194	9.066	0.194	0.230	2.532	N/A	N/A	0.124
Dense/Continuous Scrub (A2.1)	W1x	9.977	0.214	3.647	0.078	0.122	3.349	N/A	N/A	0.099
	W23			6.227	0.133	0.800	12.840			0.001
	W23a			0.103	0.002	0.000	0.236			0.000
Scattered Broadleaved Tree (A3.1)	SBT	1.957	0.042	1.957	0.042	0.181	9.225	N/A	N/A	0.086
Scattered Coniferous Tree (A3.2)	SCT	0.204	0.004	0.204	0.004	0.005	2.385	N/A	N/A	0.031
Scattered Mixed Woodland (A3.3)	SMT	0.079	0.002	0.079	0.002	0.017	21.152	N/A	N/A	0.004
Recently Felled Coniferous Woodland (A4.2)	CF	183.186	3.925	177.874	3.811	9.810	5.515	N/A	N/A	N/A
	CF>M23b			4.515	0.097	0.000	0.000			N/A

Phase 1 Description (Code)	NVC	EIA Study Area - All Sections (not including Kinloch and Kyleakin Hills SAC/SSSI)				Direct Loss		Indirect Loss		Wayleave felling
		Phase 1 Area (ha)	% of total Phase 1	NVC Area (ha)	% of Study Area	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)
	CF>U4			0.797	0.017	0.000	0.000			
	CF>W17			0.000	0.000	0.000	0.000			
	CF>W4			0.000	0.000	0.000	0.000			
Unimproved Acid Grassland (B1.1)	U4	103.926	2.227	48.201	1.033	2.138	4.435	N/A	N/A	N/A
	U4a			22.063	0.473	1.571	7.119			
	U4d			0.444	0.010	0.000	0.000			
	U5			16.428	0.352	0.715	4.355			
	U5a			4.322	0.093	0.213	4.931			
	U5b			0.200	0.004	0.060	30.005			
	U5c			1.669	0.036	0.192	11.526			
	U5d			0.039	0.001	0.001	3.676			
	U6			8.220	0.176	0.164	1.998			
	U6a			0.169	0.004	0.000	0.000			
	U6c			2.171	0.047	0.030	1.404			
Semi-Improved Acid Grassland (B1.2)	U4b	77.193	1.654	77.193	1.654	0.761	0.986	N/A	N/A	N/A
Unimproved Neutral Grassland (B2.1)	MG1	1.678	0.036	0.549	0.012	0.034	6.164	N/A	N/A	N/A
	MG1a			1.083	0.023	0.000	0.001			
	MG9			0.030	0.001	0.008	26.242			
	MG9a			0.016	0.000	0.000	0.000			
Semi-Improved Neutral Grassland (B2.2)	HL	0.000	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A
Unimproved Calcareous Grassland (B3.1)	CG10	0.058	0.001	0.044	0.001	0.000	0.000	N/A	N/A	N/A
	CG10a			0.013	0.000	0.000	0.000			
Improved Grassland (B4)	MG6	21.876	0.469	21.472	0.460	0.282	1.314	N/A	N/A	N/A
	MG6a			0.337	0.007	0.000	0.000			

Phase 1 Description (Code)	NVC	EIA Study Area - All Sections (not including Kinloch and Kyleakin Hills SAC/SSSI)				Direct Loss		Indirect Loss		Wayleave felling
		Phase 1 Area (ha)	% of total Phase 1	NVC Area (ha)	% of Study Area	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)
	MG7			0.067	0.001	0.000	0.000			
Marsh/Marshy Grassland (B5)	Je	176.770	3.788	34.800	0.746	2.386	6.855	0.533	1.533	N/A
	M23			0.481	0.010	0.101	21.013	0.000	0.000	
	M23a			2.194	0.047	0.131	5.950	0.173	7.866	
	M23b			18.398	0.394	0.201	1.094	0.059	0.319	
	M25			36.362	0.779	3.094	8.509	1.114	3.064	
	M25b			7.123	0.153	0.413	5.792	0.239	3.352	
	M25c			0.397	0.009	0.010	2.448	0.000	0.000	
	M25-M23b			0.000	0.000	0.000	0.000	0.000	0.000	
	M28			0.009	0.000	0.000	0.000	0.000	0.000	
	MG10a			73.800	1.581	3.157	4.278	0.428	0.579	
	MG10c			3.117	0.067	0.149	4.780	0.007	0.238	
Mx	0.089	0.002	0.000	0.000	0.000	0.000				
Continuous Bracken (C1.1)	U20	203.482	4.360	103.492	2.218	7.943	7.675	N/A	N/A	N/A
	U20a			6.336	0.136	0.178	2.809			
	U20b			3.547	0.076	0.148	4.180			
	U20c			89.459	1.917	10.230	11.435			
	W25			0.648	0.014	0.084	12.935			
	W25a			0.000	0.000	0.000	0.000			
Tall Ruderal (C3.1)	OV25	0.330	0.007	0.106	0.002	0.007	6.433	N/A	N/A	N/A
	OV27			0.176	0.004	0.009	5.060			
	W24			0.048	0.001	0.000	0.000			
Non-Ruderal (C3.2)	Daff	0.023	0.000	0.000	0.000	0.000	0.000	N/A	N/A	N/A
	U16			0.006	0.000	0.000	0.000			
	U16c			0.000	0.000	0.000	0.000			
	U19			0.016	0.000	0.001	7.985			

Phase 1 Description (Code)	NVC	EIA Study Area - All Sections (not including Kinloch and Kyleakin Hills SAC/SSSI)				Direct Loss		Indirect Loss		Wayleave felling
		Phase 1 Area (ha)	% of total Phase 1	NVC Area (ha)	% of Study Area	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)	% Loss of NVC Type	NVC Area (ha)
Acid Dry Dwarf Shrub Heath (D1.1)	H10	144.310	3.092	6.977	0.149	0.574	8.229	N/A	N/A	N/A
	H10a			65.167	1.396	4.684	7.188			
	H10b			0.642	0.014	0.041	6.323			
	H10c			12.549	0.269	0.314	2.501			
	H10d			0.047	0.001	0.000	0.000			
	H10-M15			8.950	0.192	0.931	10.404			
	H10-M25			7.434	0.159	0.542	7.289			
	H12			2.597	0.056	0.357	13.731			
	H12a			20.240	0.434	0.978	4.831			
	H12b			0.006	0.000	0.000	0.000			
	H12c			0.664	0.014	0.139	20.908			
	H12-M25			10.859	0.233	1.040	9.582			
	H21			0.139	0.003	0.007	5.249			
	H21a			1.795	0.038	0.185	10.317			
	H9			3.984	0.085	0.303	7.610			
H9d	1.567	0.034	0.000	0.001						
H9-H12	0.692	0.015	0.000	0.000						
Wet Dwarf Shrub Heath (D2)	M15	1825.753	39.121	5.159	0.111	0.345	6.691	0.612	11.867	N/A
	M15a			110.620	2.370	7.379	6.671	1.741	1.574	
	M15b			1002.190	21.474	68.012	6.786	17.635	1.760	
	M15c			683.459	14.645	54.014	7.903	16.536	2.419	
	M15d			4.514	0.097	0.013	0.283	0.021	0.457	
	M15-M17			19.810	0.424	2.027	10.231	0.693	3.497	
Wet Heath/Acid Grassland Mosaic (D6)	M15-U4	1.319	0.028	1.253	0.027	0.305	24.357	0.000	0.000	N/A
	M15-U6			0.066	0.001	0.000	0.000	0.000	0.000	

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Blanket Bog (E1.6.1)	M1	682.455	14.623	13.880	0.297	1.102	7.937	0.120	0.862	N/A
	M17			88.931	1.906	6.791	7.636	1.617	1.818	
	M17a			204.869	4.390	13.064	6.377	1.054	0.514	
	M17b			147.805	3.167	6.162	4.169	1.418	0.960	
	M17c			5.922	0.127	0.076	1.277	0.041	0.690	
	M17-M19			0.275	0.006	0.000	0.000	0.000	0.000	
	M17-M20			0.000	0.000	0.000	0.000	0.000	0.000	
	M17-M25			1.408	0.030	0.087	6.195	0.066	4.713	
	M19			32.730	0.701	0.553	1.690	0.810	2.476	
	M19a			156.823	3.360	6.765	4.314	3.411	2.175	
	M19b			17.400	0.373	1.200	6.899	0.035	0.203	
	M19c			0.119	0.003	0.019	15.651	0.011	9.206	
	M19-M25			1.304	0.028	0.040	3.094	0.039	3.009	
	M2			2.820	0.060	0.169	5.989	0.090	3.182	
	M2a			4.441	0.095	0.400	9.009	0.000	0.000	
M3	3.729	0.080	0.302	8.091	0.086	2.296				
Wet Modified Bog (E1.7)	M20	316.512	6.782	26.849	0.575	0.765	2.848	0.006	0.023	N/A
	M20a			6.907	0.148	0.074	1.068	0.000	0.000	
	M20b			1.208	0.026	0.043	3.570	0.053	4.395	
	M20-M25			0.768	0.016	0.000	0.000	0.000	0.000	
	M25a			278.437	5.966	20.940	7.521	6.339	2.277	
	PC			2.343	0.050	0.407	17.358	0.000	0.000	
Acid/Neutral Flush (E2.1)	M29x	48.188	1.033	0.351	0.008	0.001	0.200	0.001	0.303	N/A
	M4			0.008	0.000	0.000	0.000	0.000	0.000	
	M6			0.529	0.011	0.010	1.895	0.004	0.734	
	M6a			6.010	0.129	0.375	6.246	0.085	1.419	

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	M6b			0.000	0.000	0.000	0.000	0.000	0.000	
	M6c			37.166	0.796	1.638	4.407	0.435	1.171	
	M6d			3.634	0.078	0.204	5.626	0.114	3.134	
	M6-M25			0.490	0.010	0.007	1.434	0.000	0.000	
Basic Flush (E2.2)	M10	10.998	0.236	0.027	0.001	0.000	0.001	0.000	0.000	N/A
	M10a			10.859	0.233	1.115	10.271	0.086	0.790	
	M10b			0.000	0.000	0.000	0.000	0.000	0.000	
	M11			0.020	0.000	0.000	0.000	0.000	0.000	
	M14			0.086	0.002	0.000	0.001	0.000	0.000	
	M9			0.006	0.000	0.000	0.000	0.000	0.000	
Fen (E3)	M25Ph	0.009	0.000	0.009	0.000	0.000	0.000	0.000	N/A	
Bare Peat (E4)	ExP	0.463	0.010	0.463	0.010	0.036	7.696	0.001	0.259	N/A
Swamp (F1)	S4	0.447	0.010	0.354	0.008	0.000	0.000			N/A
	S9			0.014	0.000	0.000	0.017			
	S9a			0.080	0.002	0.005	6.843			
Standing Water (G1)	OW	48.771	1.045	0.995	0.021	0.000	0.000			N/A
	SW			47.776	1.024	0.049	0.102			
Running Water (G2)	RW	25.805	0.553	25.805	0.553	0.809	3.135	N/A	N/A	N/A
Dense Continuous Saltmarsh (H2.6)	SM16	6.170	0.132	6.170	0.132	0.014	0.228	N/A	N/A	N/A
Quarry (I2.1)	QY	2.001	0.043	2.001	0.043	0.000	0.004	N/A	N/A	N/A
Amenity Grassland (J1.2)	PG	1.345	0.029	1.345	0.029	0.000	0.000	N/A	N/A	N/A
Introduced Shrub (J1.4)	RP	6.990	0.150	6.990	0.150	0.031	0.448	N/A	N/A	N/A
Building (J3.6)	BD	5.208	0.112	5.208	0.112	0.176	3.379	N/A	N/A	N/A

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Bare Ground (J4)	BG	106.557	2.283	106.557	2.283	7.110	6.673	N/A	N/A	N/A
Other Habitat (J5)	DG	0.606	0.013	0.606	0.013	0.087	14.362	N/A	N/A	N/A
		4666.979	100.000	4666.979	100.000	281.693		55.715		71.356