VOLUME 6: CHAPTER 4 - ECOLOGY - ALTERNATIVE ALIGNMENT

Appendices (Volume 5 of this EIA Report)

Appendix V2-4.1: Legislation, Policy and Guidance

Appendix V2-4.2: Assessment Methodology

Appendix V2-4.3: National Vegetation Classification (NVC) and Habitats Survey Report

Appendix V2-4.4: Protected Species Survey Report

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

Figures (Volume 3 of this EIA Report)

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 (NVC) 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

Figure V6-4.1: Ecological Designated Sites and Ancient Woodland within 5 km

Figure V6-4.2: Carbon and Peatland Map 2016

Figure V6-4.3: National Vegetation Classification (NVC) Survey Area and Results

Figure V6-4.4: Protected Species Survey Area and Results

4. ECOLOGY

4.1 Executive Summary

4.1.1 This Chapter considers the potential impacts of the Proposed Development with the Alternative Alignment on non-avian ecology including designated sites, terrestrial and aquatic habitats, and protected species, and assesses the significance of likely predicted residual effects. The assessment is based on best practice guidance including the Chartered Institute for Ecology and Environmental Management's (CIEEM) Guidelines for Ecological Impact Assessment in the UK and Ireland (2018).

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 though areas of habitat listed on the Ancient Woodland Inventory. Most of the study area for the project as a whole 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 potential 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.

4.1.7 The assessment concluded that, as with the Proposed Alignment within Section 3, there would be residual significant adverse effects on the Kinloch and Kyleakin Hills SAC and SSSI, and on western acidic oak woodland during construction (but none during operation) and significant beneficial effects on the Kinloch and Kyleakin Hills SAC and SSSI and western acidic oak woodland due to the dismantling of the existing OHL. The beneficial effect of dismantling could potentially lead to a net-gain of ancient woodland in the long-term.

4.1.8 Overall, the Alternative Alignment would therefore be expected to have similar effects on IEFs as the Proposed Alignment within Section 3; however, many of the predicted impacts for the Alternative Alignment were assessed as a slightly lower magnitude. During construction, the assessment of the Alternative Alignment results in a reduced impact on the Kinloch and Kyleakin Hills SAC and SSSI compared to the Proposed Alignment, impacting 14.42 ha of qualifying habitat during construction as opposed to 16.73 ha (0.27 % of the site rather than 0.32 %). Disturbance to otter during construction was predicted to be reduced for the Alternative

Alignment, due to its location being further from the coastline within Section 3 (although no significant effects are predicted for either option). No operational impacts are anticipated with the Alternative Alignment (the Proposed Alignment would have a significant adverse effect on the Kinloch and Kyleakin Hills SAC and SSSI during operation if crown reduction was required within the operational corridor (through an estimated 0.1 ha of habitat modification)). 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.

4.1.9 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, with the Alternative Alignment within Section 3 of the project, on non-avian ecology, including designated sites, terrestrial and aquatic habitats, and protected species, and assesses the significance of the likely predicted residual effects. Where relevant, this Chapter refers to **Volume 2, Chapter 4: Ecology** and associated figures and appendices where the text applies to both the Proposed Alignment and the Alternative Alignment outwith Section 3 of the project.

4.2.2 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 effects on important ecological features, including direct, indirect and cumulative;
- assess the significance of predicted effects;
- describe the non-standard mitigation measures proposed to address any predicted significant effects;
- assess the significance of residual effects remaining following the implementation of mitigation; and
- consider compensation and/or enhancement to offset significant effects and/or deliver a net-benefit.

4.2.3 Effects on birds relevant to the Alternative Alignment are addressed separately in **Volume 6**, **Chapter 5: Ornithology**. The effects on hydrology are addressed in **Volume 6**, **Chapter 6: Water Environment** and effects on peat and soils in **Volume 6**, **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 relative to the Alternative Alignment is contained within **Volume 6**, **Chapter 9: Forestry**.

4.2.4 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

[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.

involved in the preparation of this Chapter is included in **Appendix V1-5.1: EIA Team**, contained within Volume 5 of this EIA Report.

4.2.5 The Chapter is supported by figures and appendices as detailed in **Part 4.2**, **Volume 2, Chapter 4: Ecology**. Additional Figures specific to the Alternative Alignment include:

- **Figure V6-4.1: Ecological Designated Sites and Ancient Woodland within 5 km**
- **Figure V6-4.2: Carbon and Peatland Map 2016**
- **Figure V6-4.3: National Vegetation Classification (NVC) Survey Area and Results**
- **Figure V6-4.4: Protected Species Survey Area and Results**

4.3 Scope of Assessment and Methodology

Scope of the Assessment

4.3.1 The scope of the assessment is the same as detailed within **Part 4.3, Volume 2, Chapter 4: Ecology** with the exception of the Alternative Alignment and associated study area being considered rather than the Proposed Alignment within Section 3 of the project (see **Figures V6-4.1** to **V6-4.4** and **Figure V2-4.5**).

4.3.2 The assessment of ecological impacts of the Proposed Alignment within Section 3 of the project is detailed within **Volume 2, Chapter 4: Ecology**.

Consultation

4.3.3 Full details of the consultation process and responses are included in **Volume 1, Chapter 6: Scope and Consultation** and associated appendices.

4.3.4 Scoping responses specific to the ecological assessment are detailed in **Table V2-4.1: Scoping Responses** in **Part 4.2, Volume 2, Chapter 4: Ecology**. These remain relevant to the Alternative Alignment.

Study Area

4.3.5 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** and **Figures V6-4.3: National Vegetation Classification Survey Area and Results**, **Figures V2-4.4** and **Figures V6-4.4: 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

4.3.6 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

4.3.7 The impact assessment methodology for the Ecological Impact Assessment (EcIA) 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 4.2.4** above.

4.3.8 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 Statutory designated sites of relevance to the Proposed Development are detailed in **Part 4.4, Volume 2, Chapter 4: Ecology** and **Figures V2-4.1** and **Figure V6-4.1: Ecological Designated Sites and Ancient Woodland within 5 km**.

4.4.2 Within Section 3 of the project, 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). Both the Proposed Alignment and the Alternative Alignment pass through these designated sites.

4.4.3 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.

Non-statutory Designations and Ancient Woodland

4.4.4 As detailed in **Part 4.4, Volume 2, Chapter 4: Ecology**, with the sole exception that with the Alternative Alignment there would no longer be any interaction with Ancient Woodland within Section 3.

Local Biodiversity Action Plan

4.4.5 As detailed in **Part 4.4, Volume 2, Chapter 4: Ecology**.

Terrestrial Habitats

4.4.6 As detailed in **Part 4.4, Volume 2, Chapter 4: Ecology** and **Figure V2-4.2** and **Figure V6-4.2: Carbon and Peatland Map 2016.**

4.4.7 With respect to the Carbon and Peatland Map 2016[3], the Alternative Alignment, as it does for the Proposed Alignment within Section 3 of the project, passes through areas of Class 1 and Class 2 peatland. Where the Alternative Alignment 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 the Alternative Alignment follows the existing OHL, the route passes through an area of Class 2 peatland for approximately 0.95 km. The Alternative Alignment also passes through a further 1 km of Class 2 peatland south of Lochan na Sàile and northwest of Beinn Bheag (**Figure V6-4.2: Carbon and Peatland Map 2016**).

Aquatic Habitats

4.4.8 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**. Within Section 3 of the project, two watercourses, Broadford River and Abhainn Lusa, were assessed[4] 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.

[3] https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/soils/carbon-and-peatland-2016-map
[4] www.sepa.org.uk/data-visualisation/water-environment-hub/ [Accessed February 2022]

Protected Species

4.4.9 Details are provided in **Part 4.4 Volume 2, Chapter 4: Ecology**. Within Section 3 of the project, as with the Proposed Alignment, results of the desk study indicate that the following species and their associated important habitat features (resting, breeding, foraging, hibernation sites etc.) may be present within the Study Area: bats (common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and Daubenton's bat (*Myotis daubentonii*)), brown hare (*Lepus europaeus*), otter (*Lutra lutra*), pine marten (*Martes martes*) and reptiles (slow worm (*Anguis fragilis*), adder (*Vipera berus*) and common lizard (*Zootoca vivipara*)).

Fish and Freshwater Pearl Mussel

4.4.10 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**. Within Section 3 of the project, as with the Proposed Alignment, results of the desk study indicate that the following protected species may be present within the Study Area: European eel (*Anguilla Anguilla*), brown/sea trout (*Salmo trutta*), Atlantic salmon (*Salmo salar*), and Arctic charr (*Salvelinus alpinus*). The Skye and Lochalsh Environment Forum website also notes that there may be FWPM in rivers on Skye.

Invasive Non-Native Species (INNS)

4.4.11 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**. Within Section 3 of the project, as with the Proposed Alignment, results of the desk study indicate that the following invasive non-native species may be present within the Study Area: American mink (*Neovison vison*), American skunk-cabbage (*Lysichiton americanus*), grey squirrel (*Sciurus carolinensis*), Himalayan balsam (*Impatiens glandulifera*), Japanese knotweed (*Fallopia japonica*); and rhododendron (*Rhododendron ponticum*).

Deer

4.4.12 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**. Within Section 3 of the project, as with the Proposed Alignment, results of the desk study indicate that red deer (*Cervus elaphus*), roe deer (*Capreolus capreolus*) and sika deer (*Cervus nippon*) may be present. Based on culling records and sightings the population is now estimated at around 5 deer/km^2 within the Kinloch Hills and Broadford area of Section 3[5].

Field Surveys

Terrestrial Habitats - Phase 1/NVC

4.4.13 As described within **Part 4.4, Volume 2, Chapter 4: Ecology**.

4.4.14 **Diagram V6-4.1: 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 62 % of the study area between them. Habitats that contribute to the study area but make up less than 1 % are included in **Table V6-4.8: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development.**

[5] Forestry and Land Scotland (2019). Kinloch Hills and Broadford Land Management Plan 2019-2029.

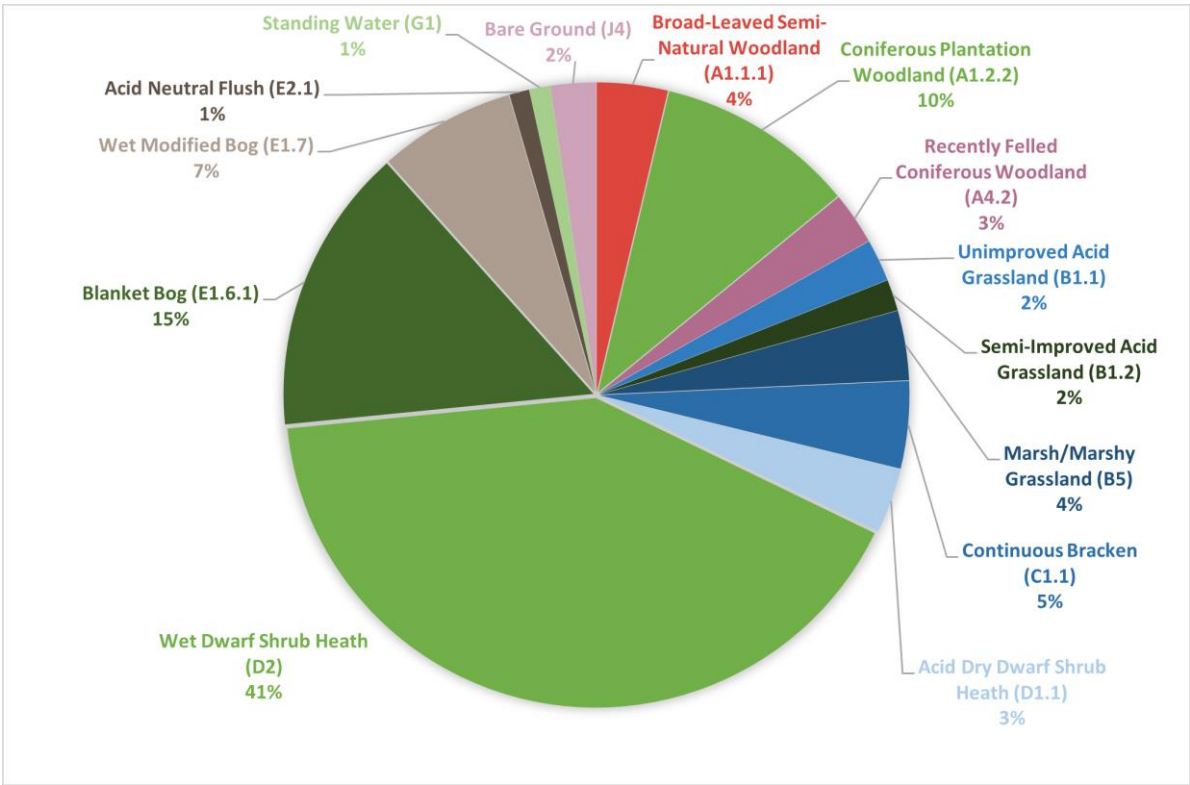

Diagram V6-4.1: Predominant Phase 1 Habitat Types Recorded within the Study Area Across All Sections

Bryophytes and Lichens

4.4.15 Specialist bryophyte and lichen surveys carried out within the respective survey area for the Alternative Alignment 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 four locations where Nationally Rare or Nationally Scarce species were present including the mosses, *Campylopus setifolius* and *Campylopus shawii,* and the lichens, *Leptogium dendriscum* and *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.

4.4.16 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.

4.4.17 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.

4.4.18 Some areas of wet flushes and very wet bog habitats, particularly bog pools, were also identified for their importance to bryophyte assemblages.

4.4.19 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

4.4.20 See **Part 4.4, Volume 2, Chapter 4: Ecology**.

Protected Species

4.4.21 The results of the protected species surveys within the study area are included in **Part 4.4 Volume 2, Chapter 4: Ecology**, 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**. For the Alternative Alignment within Section 3, survey results are shown on **Figure V6-4.4: Protected Species Survey Area and Results** and include:

- otter: five potential couches and three potential holts, with spraints recorded along many of the watercourses;
- pine marten: potential pine marten scat identified along a track to the north of the Kylerhea ferry slipway and a pine marten box was recorded as a potential den; and
- reptiles: two common lizard sightings, and potential hibernacula and refuges were recorded in dry stone walls and rock piles.

Fish

4.4.22 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**.

Other Species

4.4.23 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**. For the Alternative Alignment within Section 3 of the project, two locations with mammal holes which could not be attributed to a protected species were identified (**Figure V6-4.4: Protected Species Survey Area and Results**).

Dismantling of the Existing OHL

4.4.24 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**.

The Do-nothing Scenario (or Future Baseline)

4.4.25 Details are provided in **Part 4.4, Volume 2, Chapter 4: Ecology**.

4.5 Determining Important Ecological Features

Embedded Mitigation

4.5.1 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Iterative Design Process

4.5.2 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Pre-construction and Construction

4.5.3 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Operational Period - Wayleave Maintenance

4.5.4 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 requires the complete felling of trees within the appropriate corridor.

Ecological Features, and Impacts on Ecological Features, Scoped Out

4.5.5 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 (EcIA). 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 site[6]. The following ecological features, and impacts on ecological features, have been scoped-out of this EcIA.

Statutory Designated Sites

4.5.6 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**. Within Section 3, effects on the qualifying features and/or Notified Natural Features of the Strath SAC and SSSI, Lochs Duich, Inner Hebrides and the Minches SAC, and Coille Mhor SAC and 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.

4.5.7 The Alternative Alignment differs to the Proposed Alignment in regards to the Lochs Duich, Long and Alsh Reefs SAC and MPA. While no works would occur within the SAC and MPA for either option, a new permanent track, adjacent to the designated sites, would be constructed for the Proposed Alignment to facilitate the delivery of plant and materials. This would not be required for the Alternative Alignment. It has been concluded that there is no likely significant effect on these sites for either option and therefore no requirement for an appropriate assessment under the 2017 Habitats Regulations.

4.5.8 As with the Proposed Alignment, 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. 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

[6] 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

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 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. 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, 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 EcIA. It has been concluded that there is no likely significant effect and therefore no requirement for an appropriate assessment under the 2017 Habitats Regulations.

Terrestrial Habitats

4.5.9 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Aquatic Habitats and Species

4.5.10 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

4.5.11 The following text updates the access track watercourse crossings which are proposed in relation to Water Framework Directive watercourses within the Alternative Alignment of the Proposed Development:

- Section 3: Two permanent access crossings on minor tributaries of the Broadford River. Two permanent crossings on minor tributary of Abhainn Lusa.

Protected Species

4.5.12 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Invasive Non-native Species

4.5.13 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Deer

4.5.14 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Dismantling of the Existing OHL

4.5.15 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Decommissioning Impacts

4.5.16 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Important Ecological Features (IEFs)

4.5.17 Ecological features identified as being sensitive to the Proposed Development, are included in **Table V6-4.1: Summary of Important Ecological Features**, together with the justification for inclusion and the determination of Importance (value).

Table V6-4.1: Summary of Important Ecological Features

Important Ecological Feature	Importance	Relevant Legislation & Justification
Designated Sites		
Kinloch and Kyleakin Hills SAC	International	The study area includes 186.1 ha of SAC habitat. Natura 2000 site designated under Conservation (Natural Habitats & c.) Regulations 1994 (as amended in Scotland). 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.
Kinloch And Kyleakin Hills SSSI (Monadh Chaol Acainn Is Cheann Loch)	National	The study area includes 186.1 ha of SSSI habitat. The site is designated under the Nature Conservation (Scotland) Act 2004. 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. 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.
Ancient Woodland	National	The study area includes 251.98 ha of habitat listed on the AWI. 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 nature[7]). 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. 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. Although there is no specific legislation protecting ancient woodland, Scottish Planning Policy considers that '*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*

[7] https://www.nature.scot/doc/guide-understanding-scottish-ancient-woodland-inventory-awi

Important Ecological Feature	Importance	Relevant Legislation & Justification
		from development[8]. The Scottish Government's Policy on Control of Woodland Removal[9] asserts a strong presumption against removing ancient semi-natural woodland, or Plantations on ancient woodland sites, amongst other types of woodland. There is 609,990 ha of ancient woodland UK wide[10].
Habitats (Phase 1 Habitat Code)		
Broadleaved semi-natural woodland (A1.1.1) & scattered broadleaved trees (A3.1)	Regional	Broadleaved semi-natural woodland (A1.1.1) and scattered broadleaved trees (A3.1) covers 174.04 ha (3.71 %) 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. Broadleaved woodland types are included as SBL priority habitats and Scottish planning policy includes a presumption against felling[9]. 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. Woodland has an important biodiversity value, including through combating climate change.
Blanket Bog (E1.6.1) and Wet Modified Bog (E1.7)	Regional	Blanket bog (E1.6.1) covers 688.15 ha and 14.65 % of the study area outwith the Kinloch and Kyleakin Hills SAC/SSSI, with wet modified bog (E1.7) covering 321.96 ha and 6.86 %. 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 *Sphagna* 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. 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. 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 banket bog and heathlands, while the Highland BAP notes that the region has internationally significant peatlands. 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 bog. 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

[8] https://www.gov.scot/publications/scottish-planning-policy/pages/7/

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

[10] 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	Wet dwarf shrub heath (D2) is common and extensive covering 1865.31 ha (39.72 %) of the NVC study area. The majority of wet heath present is M15 *Trichophorum germanicum – Erica tetralix* 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. Wet heath is listed as an Annex 1 habitat in the Habitats Directive and is part of the SBL upland heathland priority habitat. 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.
Dry dwarf shrub heath (D1.1)	Local	Dry dwarf shrub heath (D1.1) covers 147.50 ha (3.14 %) 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. 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.
Species		
Otter	Regional	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). 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 pools[11]. Otter activity, including potential resting sites (nine couches and six holts), was recorded along watercourses within all Sections of the Proposed Development.

4.5.18 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 V6-4.1: 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**.

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

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 with the Alternative Alignment based on the activities/works described in **Volume 1, Chapter 3: Project Description** and **Volume 6, Chapter 2: Project Description**.

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 reinstated. 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. 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 Kinloch and Kyleakin Hills SAC and SSSI, the stone tracks proposed for the Alternative Alignment would be a combination of cut (approximately 1.1 km) and floating track design (approximately 3.6 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 V6-2.1a-e: 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 infrastructure[12]. 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 Activities) (Scotland) Regulations 2011 (CAR). A watercourse crossing schedule for permanent watercourse crossings for the Alternative Alignment 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.

[12] 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.

4.6.6 **Table V6-4.2: 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 V6-4.8: 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 V6-4.2: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**. Forestry surveys (see **Volume 6, Chapter 9: Forestry**) have indicated that one area within the Kinloch and Kyleakin Hills SAC and SSSI where the Alternative Alignment passes over the Allt Mòr watercourse would require limited felling works to create the safe operational wayleave corridor; however, a reduced width operational corridor through the SAC and SSSI has been adopted (see **Volume 6, Chapter 9: Forestry**).

4.6.10 Habitat loss associated with qualifying features of the Kinloch and Kyleakin Hills SAC and SSSI associated with the Alternative Alignment is provided in **Table V6-4.3: Estimated Loss and Modification of IEF Phase 1 Habitat for Alternative Alignment – Within the Kinloch and Kyleakin Hills SAC and SSSI**.

Table V6-4.2: 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)[13]	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	174.04	0	<0.001	0.05	0.85	5.28	7.19	0.61	13.98	13.98	8.03
Acid Dry Dwarf Shrub Heath (D1.1): Direct	147.50	<0.001	1.12	2.71	0.89	2.35	0.79	2.54	10.40	10.40	7.05
Wet Dwarf Shrub Heath (D2): Direct	1865.31	0.004	5.66	51.45	8.73	45.94	10.81	11.21	133.80	171.23	9.18
Wet Dwarf Shrub Heath (D2): Indirect		0	0.43	4.95	1.64	29.60	0.81	0	37.43		
Blanket Bog (E1.6.1): Direct	688.15	0.001	16.64	2.19	4.68	6.74	2.46	4.19	36.90	45.47	6.61
Blanket Bog (E1.6.1): Indirect		0	0.35	0.42	0.15	7.06	0.59	0	8.57		
Wet Modified Bog (E1.7): Direct	321.96	<0.001	7.00	2.63	3.75	0.91	3.27	5.10	22.66	27.41	8.51
Wet Modified Bog (E1.7): Indirect		0	2.11	0.33	0.78	0.94	0.59	0	4.75		

Table V6-4.3: Estimated Loss and Modification of IEF Phase 1 Habitat for Alternative Alignment – Within the Kinloch and Kyleakin Hills SAC and SSSI

Phase 1 Habitat Type (Code) [14]	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	168.81	0.24	N/A	0.24	0.14

[13] Not including within Kinloch and Kyleakin Hills SAC/SSSI.

[14] A small area of proposed land-take associated with potential Public Road Improvement (PRI) works on the verges of the minor road through Glen Arroch and within the SAC amounting to 0.48 ha was not field surveyed. A desk-based analysis using aerial imagery and NatureScot NVC data was used to classify the likely habitats in this non-surveyed area (NSA) with these then being apportioned to SAC qualifying habitats where relevant. These apportioned NSA habitats are included within this table (see **Appendix V2-4.7: Kinloch and Kyleakin Hills Special Area of Conservation Shadow Habitats Regulations Appraisal** for full details).

Phase 1 Habitat Type (Code) [14]	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
Scattered Broadleaved Trees (A3.1)					
Acid Dry Dwarf Shrub Heath (D1.1)	448.41	0.43	N/A	0.43	0.10
Wet Dwarf Shrub Heath (D2)	2215.69	5.93	4.15	10.08	0.45
Blanket Bog (E1.6.1) and Wet Modified Bog (E1.7)	965.41	2.15	1.53	3.68	0.38

4.6.11 The correlation between the Phase 1 habitat losses presented in **Table V6-4.3: Estimated Loss and Modification of IEF Phase 1 Habitat for Alternative Alignment – 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 V6-4.4: Correlation between Habitat Classifications with respect to Kinloch and Kyleakin Hills SAC and SSSI**.

Table V6-4.4: Correlation between Habitat Classifications with respect to Kinloch and Kyleakin Hills SAC and SSSI

Phase 1 Habitat	NVC Communities Recorded/ Affected[15]	SAC Qualifying Feature	SSSI Notified Natural Feature	Annex I Habitat
A1.1.1 Broadleaved Semi-Natural Woodland and A3.1 Scattered Broadleaved Tree	W4, W7, W11, W17, SBT	Western acidic oak woodland	Upland oak woodland	91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
D1.1 Dry Dwarf Shrub Heath (Acid)	H9, H10, H12, H21, H10-M25 intermediate	Dry heaths	Subalpine dry heath	4030 European dry heaths
D2 Wet Dwarf Shrub Heath	M15, M15-M17 intermediate	Wet heathland with cross-leaved heath	Subalpine wet heath	4010 Northern Atlantic wet heaths with *Erica tetralix*
E1.6.1 Blanket Bog	M1, M2, M3, M17, M19, M17-M25 intermediate, M19-M25 intermediate	Blanket bog	Blanket bog	7130 Blanket bog

[15] 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/SSSI[55]) 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.

Phase 1 Habitat	NVC Communities Recorded/ Affected[15]	SAC Qualifying Feature	SSSI Notified Natural Feature	Annex I Habitat
E1.7 Wet Modified Bog	M20, M25			

4.6.12 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.

4.6.13 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 for the operational wayleave creation and maintenance may give rise to fragmentation effects on ancient woodland, semi-natural broadleaved woodland and scattered broadleaved trees.

4.6.14 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.

4.6.15 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.

4.6.16 The following parts of this Chapter describe the predicted impacts and the potential significance of effects for each scoped-in IEF.

Kinloch and Kyleakin Hills SAC

4.6.17 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 Alternative Alignment 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**).

4.6.18 The assessment within this Chapter addresses the requirements of the EIA Regulations through adherence to the guidance referred to in **paragraph 4.2.4**. 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 potential impacts and significance of effects are discussed from **paragraph 4.6.98**. 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.

4.6.19 **Impact:** Direct and indirect habitat loss and modification, and potential fragmentation associated with the Alternative Alignment, 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. 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 4.6.58**; subalpine dry heath – **paragraph 4.6.89**, subalpine wet heath – **paragraph 4.6.77**; western acidic oak woodland – **paragraph 4.6.41** and **paragraph 4.6.49**; bryophyte and lichen assemblage (component of western acidic oak woodland) – **paragraph 4.6.33**).

4.6.20 **Importance of Ecological Feature: International** (as described in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.21 **Conservation Status:** Detailed in **Table V6-4.5: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features**.

4.6.22 **Impact Magnitude**: Detailed habitat loss for each qualifying feature is included in **Table V6-4.5: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features**. In total, 8.74 ha of the designated site qualifying habitat features falls beneath the footprint (direct loss) of the Alternative Alignment (OHL tower compounds and access tracks). Indirect impacts on wetland habitats could result in further habitat loss of approximately 5.68 ha of the designated site qualifying wetland habitat features. In total, direct and indirect habitat loss combined would equate to 14.42 ha, or 0.27 % of the SAC.

4.6.23 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.

4.6.24 **Significance of Effect**: Although the impact is at a Low spatial scale, the Alternative Alignment would undermine conservation objectives over the Long-Term or Permanently (further detailed below in **Table V6-4.5: 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 Alternative Alignment is considered to be **Moderate Adverse** and **Significant.**

Table V6-4.5: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features

Qualifying Feature[16]	Impact and Effect	Conservation Status and Condition of Habitat	Impact Magnitude	Significance of Effect
Blanket Bog	Detailed in **Blanket Bog** and **Wet Modified Bog** (**paragraph 4.6.58**). Direct and indirect habitat loss. Impacts primarily lead to effects on the following conservation objectives: • Reduction in extent of qualifying habitat. • Structure and function of habitat. • Processes supporting habitat.	Assessed in the 2019 JNCC report on blanket bog as 'Unfavourable - Bad' and 'Stable' at the UK level[17]. The Conservation Status of the blanket bog feature of the SAC is considered 'Favourable Maintained' with 'no negative pressures'[18]; the contemporary NVC surveys and observations in this area would continue to indicate the blanket bog locally remains in Favourable condition.	Blanket Bog (E1.6.1): direct (1.25 ha) and indirect (1.05 ha) impacts. Wet Modified Bog (E1.7): direct (0.90 ha) and indirect (0.48 ha) impacts. Blanket Bog and Wet Modified Bog combined (i.e., the qualifying feature) equals 2.15 ha direct and 1.53 ha indirect impacts; a direct + indirect total of 3.68 ha which is equivalent to 0.38 % of the blanket bog extent within the SAC[19]. **Low Spatial and Long-Term/Permanent Temporal**	**Moderate Adverse & Significant**
Dry Heaths	Detailed in **Dry dwarf shrub heath** (**paragraph 4.6.89**). Direct and indirect habitat loss. Impacts primarily lead to effects on the following conservation objectives:	Assessed at the UK level as 'Unfavourable Bad' and 'Improving'[20]. 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'[18]. The contemporary NVC surveys and observations in the SAC area would continue to indicate the dry heath locally is in Favourable condition.	Direct impacts on 0.43 ha, which is equivalent to 0.10 % of the dry heath within the SAC. **Low Spatial and Long-Term/Permanent Temporal**	**Moderate Adverse & Significant**

[16] Not including scoped out features (Alpine and Subalpine Heaths, Mixed Woodland on Base Rich Soils Associated with Rocky Slopes, and Otter)
[17] https://jncc.gov.uk/jncc-assets/Art17/H7130-UK-Habitats-Directive-Art17-2019.pdf [Accessed June 2022]
[18] https://sitelink.nature.scot/site/8282
[19] As per the SAC citation there is approximately 965.41 ha of blanket bog within the SAC (https://sitelink.nature.scot/site/8282)
[20] https://jncc.gov.uk/jncc-assets/Art17/H4030-UK-Habitats-Directive-Art17-2019.pdf

Qualifying Feature[16]	Impact and Effect	Conservation Status and Condition of Habitat	Impact Magnitude	Significance of Effect
	• Reduction in extent of qualifying habitat.			
Western Acidic Oak Woodland	Detailed in **Broadleaved Semi-Natural Woodland** (**paragraphs 4.6.58** and **4.6.33**). Direct habitat loss and disturbance for tower foundations and access tracks. Impacts primarily lead to effects on the following conservation objectives: • Reduction in extent of qualifying habitat. • Structure and function of habitat. • Processes supporting habitat.	Assessed in the 2019 JNCC report on Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles[21] as 'Unfavourable Bad' and 'Stable'[22]. 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 overgrazing[18]. However, the Conservation Status of particular stands may be variable, as described in **paragraph 4.6.53**. 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[5, 23].	Direct impacts on 0.24 ha, which is equivalent to 0.14 % of the western acidic oak woodland within the SAC. **Low Spatial and Long-Term/Permanent Temporal**	**Moderate Adverse & Significant**
Wet Heathland With Cross-Leaved Heath	Detailed in **Wet Dwarf Shrub Heath (paragraph 4.6.77**). Direct and indirect habitat loss. Impacts primarily lead to effects on the following conservation objectives: • Reduction in extent of qualifying habitat. • Structure and function of habitat. • Processes supporting habitat.	Assessed in the 2019 JNCC report on Northern Atlantic wet heaths with *Erica tetralix* as 'Unfavourable - Bad' and 'Deteriorating' at the UK level[24]. The Conservation Status of the wet heathland feature of the SAC is considered 'Unfavourable Declining' (11 September 2009) with 'overgrazing' cited as a negative pressure[18], 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 Averis[25] during bryophyte and	Direct (5.93 ha) and indirect (4.15 ha) impacts totalling on 10.08 ha, which is equivalent to 0.45 % of the wet heathland and cross-leaved heath within the SAC. **Low Spatial and Long-Term/Permanent Temporal**	**Moderate Adverse & Significant**

[21] 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.

[22] https://jncc.gov.uk/jncc-assets/Art17/H91A0-UK-Habitats-Directive-Art17-2019.pdf

[23] 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.

[24] https://jncc.gov.uk/jncc-assets/Art17/H4010-UK-Habitats-Directive-Art17-2019.pdf

[25] Ben Averis *pers. comm.* 04 May 2022.

Qualifying Feature[16]	Impact and Effect	Conservation Status and Condition of Habitat	Impact Magnitude	Significance of Effect
		lichen surveys for the Alternative Alignment in this area in April 2022 that the level of grazing in the wet heath habitats appears to have reduced since he last surveyed this area in 2002[26], with an abundance of tall, tussocky bog and heath vegetation prevailing.		

[26] 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

4.6.25 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 other[27], as shown in **Table V6-4.4: 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 4.6.32** and **4.6.98** 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.

4.6.26 **Impact:** Described within relevant corresponding IEF's detailed further below in this assessment (blanket bog – **paragraph 4.6.58**; subalpine dry heath – **paragraph 4.6.89**, subalpine wet heath – **paragraph 4.6.77**; upland oak woodland – **paragraph 4.6.41** and **paragraph 4.6.49**; bryophyte and lichen assemblage – **paragraph 4.6.33**).

4.6.27 **Importance of Ecological Feature: National** (as assessed in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.28 **Conservation Status:** As detailed for the corresponding SAC habitats in **Table V6-4.5: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features**.

4.6.29 **Impact Magnitude:** Expected habitat loss and modification from the Alternative Alignment would directly and indirectly (i.e., on wetland habitat) impact approximately 14.42 ha of the SSSI notified natural habitat features (i.e., IEFs), equating to 0.27% 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 (1.25 ha) and indirect (1.05 ha). Impacts on Wet Modified Bog are direct (0.90 ha) and indirect (0.48 ha). Blanket Bog and Wet Modified Bog combined (i.e., the notified natural feature) equals 2.15 ha direct and 1.53 ha indirect impacts; a direct + indirect total of 3.68 ha which is equivalent to 0.38% of the blanket bog extent within the SSSI;
- Subalpine dry heath: Direct impacts on 0.43 ha (equivalent to 0.10% of the dry heath within the SSSI);
- Upland oak woodland: 0.24 ha, equivalent to 0.14% of the habitat type in the SSSI; and
- Subalpine wet heath: Direct (5.93 ha) and indirect (4.15 ha) impacts totalling 10.08 ha, which is equivalent to 0.45% of the wet heathland and cross-leaved heath within the SSSI.

4.6.30 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.

4.6.31 **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 V6-4.5: Conservation Status, Condition, and Impact Magnitude of Kinloch and Kyleakin Hills SAC Qualifying Features**.

[27] Kinloch and Kyleakin Hills SSSI Management Statement (https://sitelink.nature.scot/site/8173)

Kinloch and Kyleakin Hills SSSI - Bryophyte and Lichen Assemblage

4.6.32 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.

4.6.33 **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.

4.6.34 **Importance of Ecological Feature: National** (as assessed in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.35 **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)[28].

4.6.36 **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 four locations (Target Notes (TNs) 65, 106, 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 Alternative Alignment. 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.

4.6.37 For wayleave maintenance, conductors would be able to span over the majority of woodland areas along the Alternative Alignment and within the SSSI without the need for felling, lopping or crown reduction during construction.

4.6.38 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.

4.6.39 **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

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

4.6.41 **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.

[28] https://sitelink.nature.scot/site/8173

4.6.42 It is important to note that the infrastructure would require to pass through AWI polygons[7]. 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.

4.6.43 **Importance of Ecological Feature: National** (as assessed in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.44 **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 Isles[21] is assessed as 'Unfavourable Bad' and 'Stable'[22].

4.6.45 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 the results of the desk study that deer densities vary widely across the Site and as such will have varying levels of impact on this IEF.

4.6.46 **Magnitude of Impact:** The Proposed Development (i.e. across all Sections) would include the direct loss of approximately 19.38 ha of habitat listed on the AWI[7] (7.69 % of ancient woodland within the study area, outwith the Kinloch and Kyleakin Hills SAC/SSSI) 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 V6-4.6: Ancient Woodland Loss**. As can be seen in this table all losses are predicted within Section 5 (8.37 ha, or 43.2% of loss), Section 6 (6.28 ha, or 32.4% of loss), and Section 4 (4.73 ha, or 24.4% of loss). No losses are predicted in Sections 0, 1, 2, and 3 (outwith the Kinloch and Kyleakin Hills SAC/SSSI) as a result of the Alternative Alignment (differing to the Proposed Alignment which would have a 1.2 ha loss within Section 3); see **Table V6-4.6: Ancient Woodland Loss**. It should also be noted that with respect to Section 6, despite the 6.28 ha (or 32.4%) 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).

4.6.47 When considering the scale of the loss of ancient woodland habitat (i.e., direct impact on up to 7.69 % of ancient woodland habitat within the study area), an impact magnitude of **Low Spatial** and **Permanent Temporal** is appropriate.

4.6.48 **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 V6-4.6: Ancient Woodland Loss

Section	0	1	2	3[29]	4	5	6
Baseline within study area (ha)	0	0	0	0	73.97	124.35	53.67
Direct loss beneath footprint of infrastructure design (ha)	N/A	N/A	N/A	N/A	3.24	5.38	6.28
Wayleave loss (ha)	N/A	N/A	N/A	N/A	1.49	2.99	N/A
Total loss (ha)	0	0	0	0	4.73[30]	8.37[31]	6.28[32]

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

4.6.49 **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.

4.6.50 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.

4.6.51 **Importance of Ecological Feature: Regional** (as determined in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.52 **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 Isles[20] is assessed as 'Unfavourable Bad' and 'Stable'[21].

4.6.53 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 the results of the desk study that deer densities vary widely across the Proposed Development and as such these will have varying levels of impact on this IEF.

[29] Outside of the Kinloch and Kyleakin Hills SAC and SSSI.
[30] 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).
[31] 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).
[32] 0.14 ha of this overlaps with Phase 1 Habitat A1.1.1, Broadleaved semi-natural woodland.

4.6.54 **Impact Magnitude:** The UK has an estimated area of 91,591 ha of old sessile oak woods with *Ilex* and *Blechnum* in the British Isles[22], of which 22,591 ha is in Scotland[33].

4.6.55 Broadleaved semi-natural woodland and scattered broadleaved trees cover 174.04 ha (3.71%) 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 13.98 ha due to temporary and permanent infrastructure and wayleave felling, or 8.03 % of the respective habitat type within the study area (detailed within **Table V6-4.8: 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 V6-4.2: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**. This table indicates that 89% 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.

4.6.56 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.

4.6.57 **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

4.6.58 **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).

4.6.59 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.

4.6.60 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** and **Figures V6-4.3: 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** and **Figures V6-4.3: 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.

[33] https://jncc.gov.uk/jncc-assets/Art17/H91A0-SC-Habitats-Directive-Art17-2019.pdf

4.6.61 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.

4.6.62 **Importance of Ecological Feature: Regional** (as determined in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.63 **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 level[1717].

4.6.64 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 terminology[34] and depending on the area considered[35]. 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).

4.6.65 **Impact Magnitude:** The UK has an estimated 2,182,200 ha of blanket bog[17**Error! Bookmark not defined.**] of which a round 1,759,000 to 1,800,000 ha is in Scotland[36] (approximately 23% of the land area)[37]. 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.

4.6.66 Estimated loss of blanket bog and wet modified bog within the study area (including the per Section breakdown) is included in **Table V6-4.2: 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 V6-4.8: Baseline Habitat Data and All Habitat Loss Anticipated as part of the Proposed Development**.

4.6.67 Blanket bog covers 688.15 ha (14.65 %) 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 V6-4.8: 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 36.90 ha due to permanent and temporary infrastructure, equivalent to 5.36 % of the respective habitat type in the study area. As shown in **Table V6-4.2: 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.

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

[35] 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.

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

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

4.6.68 Wet modified bog covers 321.96 ha (6.86%) of the study area outwith the Kinloch and Kyleakin Hills SAC/SSSI. The direct habitat loss for wet modified bog is predicted to be 22.66 ha due to permanent and temporary infrastructure, equivalent to 7.04 % of the respective habitat type within the study area. As shown in **Table V6-4.2: 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.

4.6.69 For this blanket mire resource as a whole, i.e., combining blanket bog and wet modified bog, direct losses amount to 59.56 ha for permanent and temporary infrastructure, or 5.9 % of the respective study area (40% of these combined losses occur within Section 1).

4.6.70 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)[38]). 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*. 2008[39]). For this assessment, indirect impacts are assumed to extend out to 10 m from infrastructure.

4.6.71 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 8.57 ha for blanket bog and 4.75 ha for wet modified bog. As per **Table V6-4.2: 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 82% of the total indirect blanket bog loss), with much smaller losses on Sections 1, 2, 3, and 5, with no predicted indirect losses in Sections 0 and 6. With respect to wet modified bog, 2.11 ha (44%) of losses are predicted within Section 1. There are further small losses predicted in Sections 2, 3, 4 and 5, with no indirect wet modified bog losses in Sections 0 and 6.

4.6.72 This worst-case scenario of direct and indirect habitat loss is a total of 45.47 ha or 6.61 % of the study area for blanket bog and 27.41 ha or 8.51 % 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 72.88 ha or 7.22 % of the combined resource within the respective study area.

4.6.73 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)[40] 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

[38] Landry, J. & Rochefort, L. (2012). The Drainage of Peatlands: Impacts and Rewetting Techniques. Peatland Ecology Research Group, Université Laval, Quebec.
[39] 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.
[40] 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.

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 wholescale 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.

4.6.74 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.

4.6.75 When considering the scale of the above habitat losses (i.e., direct and indirect impacts on up to 7.22 % 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.

4.6.76 **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

4.6.77 **Impact**: Impacts are the same as those discussed for blanket bog and wet modified bog in **paragraph 4.6.58**; direct and indirect loss of habitat resulting in a reduction in the extent and distribution of this habitat.

4.6.78 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.

4.6.79 **Importance of Ecological Feature: Local** (as assessed in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.80 **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 level[24].

4.6.81 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 terminology[34] and depending on the area considered[35]. 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 guidance[41]), generally low grazing/browsing impacts, and a lack of disturbance, burning and artificial drainage impacts.

[41] https://data.jncc.gov.uk/data/78aaef0b-00ef-461d-ba71-cf81a8c28fe3/CSM-UplandHabitats-2009.pdf

4.6.82 **Impact Magnitude**: The UK has an estimated 508,817 ha of this wet heath type[Error! Bookmark not defined.]. The m ajority, around 340,000 to 400,000 ha, is in Scotland[42].

4.6.83 Wet heath covers 1865.31 ha (39.72 %) of the study area; the majority of which is M15b and M15c of similar quality and value (detailed in **Table V6-4.8: 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 133.80 ha due to permanent and temporary infrastructure (the per Section breakdown is also provided in **Table V6-4.2: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**). This table indicates that 38% (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 (34%) 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 72% of the direct losses predicted on wet heath.

4.6.84 As described in **paragraph 4.6.704.6.70**, 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 37.43 ha for permanent infrastructure (29.60 ha, or 79% of which is predicted to occur in Section 4; see **Table V6-4.2: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**).

4.6.85 This worst-case scenario of direct and indirect habitat loss is a total of 171.23 ha, or 9.18%, of the study area for wet heath (the per Section breakdown is also provided in **Table V6-4.2: Estimated Loss and Modification of IEF Phase 1 Habitat for Proposed Development – Outwith the Kinloch and Kyleakin Hills SAC & SSSI**).

4.6.86 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 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.

4.6.87 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.

4.6.88 **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

4.6.89 **Impact:** Direct loss of habitat resulting in a reduction in the extent and distribution of this habitat.

4.6.90 Fragmentation effects are considered unlikely for dry heath due to the negligible hydrological interference from infrastructure.

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

4.6.91 **Importance of Ecological Feature: Local** (as assessed in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.92 **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 level[20].

4.6.93 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 terminology[34] and depending on the area considered[35]. 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 guidance[4141]), generally low grazing/browsing impacts, and a lack of disturbance and burning impacts.

4.6.94 **Impact Magnitude:** The UK has an estimated area of 722, 298 ha of dry heath[20], of which 479,000 ha is in Scotland[43].

4.6.95 Dry heath covers 147.50 ha (3.14 %) of the study area; the majority of this is H10, specifically the H10a Typical sub-community (detailed in **Table V6-4.8: 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 10.40 ha, or 7.05 % of dry heath in the study area (the per Section breakdown is also provided in **Table V6-4.2: 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 26%), Section 6 (2.54 ha, or 24%) and Section 4 (2.35 ha, or 23%).

4.6.96 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.

4.6.97 **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

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

4.6.99 **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, 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, potential 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**

[43] https://jncc.gov.uk/jncc-assets/Art17/H4030-SC-Habitats-Directive-Art17-2019.pdf

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.

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

4.6.101 **Importance of Ecological Feature: Regional** (as determined in **Table V6-4.1: Summary of Important Ecological Features**).

4.6.102 **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 level[44]. 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 species[45]. 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 designated[45].

4.6.103 **Magnitude of Impact:** Desk study and field survey results indicate otter activity throughout the study area, including at least three potential holts (all within Section 3, one of which is within the Kinloch and Kyleakin Hills SAC and SSSI) and seven potential couches (one in Section 0, one in Section 1, and five 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.

4.6.104 Disturbance could impact one couch within 30 m, and three holts within 200 m (if used for breeding) (all within Section 3, with one couch and one holt 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**).

4.6.105 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** and **Figure V6-4.4: 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 four temporary and two permanent crossings over watercourses which are connected to where otter activity has been recorded (none of which 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;

[44] https://jncc.gov.uk/jncc-assets/Art17/S1355-UK-Habitats-Directive-Art17-2019.pdf
[45] Scottish Natural Heritage (2015).Trend Note: Trends of otter in Scotland.

- 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;

4.6.106 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 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

Kinloch and Kyleakin Hills SAC – Western Acidic Oak Woodland

4.6.110 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

4.6.111 **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

4.6.112 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

4.6.113 **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.

Ancient Woodland

4.6.114 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

4.6.115 **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

4.6.116 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

4.6.117 **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

4.6.118 Details are provided in **Part 4.5, Volume 2, Chapter 4: Ecology**.

4.6.119 **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

4.6.120 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

4.6.121 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 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.

4.6.122 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**.

4.6.123 An operational wayleave would be created during construction by complete felling of trees within the wayleave and will be maintained throughout the operational period with no crown reduction proposed. There are therefore no additional impacts to consider in addition to those already considered within **Predicted Construction Impacts**.

4.7 Assessment of Predicted Cumulative Effects

4.7.1 Details of wider-countryside cumulative effects are provided in **Part 4.6, Volume 2, Chapter 4: Ecology**.

Designated Sites

4.7.2 The consideration of in-combination effects of the Alternative Alignment 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

4.7.3 **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 Alternative Alignment there is limited risk of trees encroaching within this distance from conductors.

4.7.4 **Importance of Ecological Feature**: **International** Importance (**Table V6-4.1: Summary of Important Ecological Features**).

4.7.5 **Conservation Status**: Detailed in **Table V6-4.3: Estimated Loss and Modification of IEF Phase 1 Habitat for Alternative Alignment – Within the Kinloch and Kyleakin Hills SAC and SSSI**.

4.7.6 **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, the total impact of the Alternative Alignment on the woodland expansion project is 0.35 ha**.** This represents 0.048% 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.

4.7.7 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 to Low Spatial** and **Long-Term-Permanent Temporal** is appropriate.

4.7.8 **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

4.7.9 **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 qualify of the future assemblages of bryophytes and lichens.

4.7.10 **Importance of Ecological Feature:** Upland oak woodland and Bryophyte and Lichen Assemblages are considered Ecological Features of **National** Importance (**Table V6-4.1: Summary of Important Ecological Features**).

4.7.11 **Conservation Status**: Conservation Status of western acidic oak woodland habitat at the UK level is as assessed as 'Unfavourable Bad' and 'Stable'[22]. 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 declining[28]. Forestry operations, rhododendrons and under grazing are noted as 'negative pressures'.

4.7.12 **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 0.35 ha of loss and modification is likely due to crown reduction. This represents 0.048 % 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.

4.7.13 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.

4.7.14 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 **Not Significant** under the terms of the EIA Regulations.

4.8 Mitigation

Construction Phase

4.8.1 Details are provided in **Part 4.7, Volume 2, Chapter 4: Ecology**.

Dismantling of the Existing OHL

4.8.2 Details are provided in **Part 4.7, Volume 2, Chapter 4: Ecology**.

Operational Phase

4.8.3 No operational impacts identified.

4.9 Residual Effects

Construction

4.9.1 A summary of residual effects is provided in **Table V6-4.7: 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 Alternative Alignment 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** and **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 Scare 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** and **Significant** effect on ancient woodland, due to its irreplaceable value (although the habitat loss would be slightly reduced compared to the Proposed Alignment, as there would be no loss in ancient woodland as a result of the Alternative Alignment within Section 3 (outwith the Kinloch and Kyleakin Hills SAC and SSSI).

4.9.5 Habitat IEFs outwith SAC and SSSI: Residual effects of **Minor Adverse** and **Not Significant** are anticipated on broadleaved woodland and scattered broadleaved 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** 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** effect.

4.9.9 Ancient Woodland: Future regeneration of wayleave may have a **Minor** to **Moderate Beneficial** and **Significant** effect.

4.9.10 Broadleaved Semi-Natural Woodland: Future regeneration of wayleave may have a **Minor Beneficial** and **Not Significant** 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 None.

Cumulative

4.9.13 Kinloch and Kyleakin Hills SAC and SSSI: Potential cumulative impacts arising from possible future modification of regenerating woodland may have a **Minor** to **Moderate Adverse** and **Significant** effect.

4.9.14 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** to **Moderate Adverse** and **Significant** 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 V6-4.7: Summary of Predicted Impacts and Residual Effects** provides a summary of the impacts and significance of effects on IEF from the Alternative Alignment of the Proposed Development.

4.11.2 Overall, the Alternative Alignment would be expected to have similar effects on IEFs as the Proposed Alignment; however, many of the predicted impacts were assessed as a slightly lower magnitude within Section 3 of the project.

4.11.3 During construction, minor differences are predicted in the magnitude of IEF habitat loss outwith the Kinloch and Kyleakin Hills SAC and SSSI. The assessment of the Alternative Alignment results in a reduced impact on the Kinloch and Kyleakin Hills SAC and SSSI compared to the Proposed Alignment, impacting 14.42 ha of qualifying habitat during construction as opposed to 16.73 ha (0.27 % of the site rather than 0.32 %).

4.11.4 Disturbance to otter during construction was also predicted to be reduced for the Alternative Alignment, due to its location being further from the coastline within Section 3, albeit no significant effects are predicted for either option.

4.11.5 Dismantling of the existing OHL would remove artificial wayleave maintenance which in turn will allow re-establishment of western acidic oak woodland and an improvement to the naturalness and integrity of the SAC. Precautionary analysis indicates that between 1.35 to 2.74 ha of western acidic oak woodland may re-establish. This benefit applies equally to the Proposed and Alternative Alignment.

4.11.6 Dismantling of the existing OHL also potentially benefits ancient oak woodland. Precautionary analysis indicates that between 2.03 to 5.87 ha of ancient oak woodland may re-establish. This benefit applies equally to the Proposed and Alternative Alignment.

4.11.7 Dismantling of the existing OHL also potentially benefits broadleaved semi-natural woodland. Precautionary analysis indicates that between 1.00 to 4.62 ha of broadleaved semi-natural woodland may re-establish. This benefit applies equally to the Proposed and Alternative Alignment.

4.11.8 The Proposed Alignment would have a predicted significant adverse effect on the Kinloch and Kyleakin Hills SAC and SSSI during operation where crown reduction may be required within the operational corridor (approximately 0.1 ha). No operational impacts are anticipated with the Alternative Alignment.

4.11.9 Potential in-combination impacts on the Kinloch and Kyleakin Hills SAC and SSSI were assessed as resulting in a loss of approximately 0.35 ha from the Alternative Alignment, compared with a predicted loss of a further 2.43 ha of qualifying habitat from the Proposed Alignment.

Table V6-4.7: Summary of Predicted Impacts and Residual Effects

Important Ecological Feature	Nature Conservation Value / Importance	Impact	Impact Magnitude	Residual Significance of Effect (post-mitigation)
Construction				
Kinloch and Kyleakin Hills SAC Qualifying Habitats • 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 V6-4.3: Estimated Loss and Modification of IEF Phase 1 Habitat for Alternative Alignment – 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 • 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 V6-4.3: Estimated Loss and Modification of IEF Phase 1 Habitat for Alternative Alignment – 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	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	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				
No impacts				
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 V6-4.8: 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 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 V6-4.8: 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	171.66	3.66	6.087	0.130	0.265	4.356	N/A	N/A	0.373
	W4a			0.108	0.002	0.000	0.000			0.000
	W4b			0.821	0.017	0.080	9.772			0.000
	W4c			0.860	0.018	0.007	0.812			0.003
	W7			0.980	0.021	0.022	2.291			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			33.823	0.720	0.817	2.415			0.365
	W11a			4.666	0.099	0.006	0.122			0.000
	W11b			2.218	0.047	0.115	5.163			0.093
	W17			90.171	1.920	3.693	4.095			5.201

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			0.831	0.018	0.030	3.656			0.050
	W17b			30.244	0.644	1.537	5.082			0.944
	W17c			0.094	0.002	0.00002	0.023			0.000
	W17d			0.008	0.000	0.000	0.000			0.000
Broadleaved Plantation Woodland (A1.1.2)	AG	6.72	0.14	0.759	0.016	0.019	2.559	N/A	N/A	0.058
	BP			0.035	0.001	0.000	0.000			0.000
	W17x			5.869	0.125	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	2.55	0.05	2.55	0.05	0.010	0.380	N/A	N/A	0.168
Coniferous Plantation Woodland (A1.2.2)	CP	488.25	10.40	448.635	9.553	15.652	3.489	N/A	N/A	54.295
	YCP			39.617	0.844	2.291	5.782			6.772
Mixed Plantation Woodland (A1.3.2)	MP	9.07	0.19	9.07	0.19	0.230	2.532	N/A	N/A	0.124
Dense/Continuous Scrub (A2.1)	W1x	10.9	0.22	3.997	0.085	0.169	4.220	N/A	N/A	0.164
	W23			6.300	0.134	0.800	12.691			0.009
	W23a			0.088	0.002	0.0002	0.275			0.000
Scattered Broadleaved Tree (A3.1)	SBT	2.37	0.05	2.374	0.051	0.203	8.534	N/A	N/A	0.043
Scattered Coniferous Tree (A3.2)	SCT	0.30	0.01	0.304	0.006	0.012	3.831	N/A	N/A	0.041
Scattered Mixed Woodland (A3.3)	SMT	0.08	0.002	0.079	0.002	0.017	21.152	N/A	N/A	0.004
Recently Felled Coniferous Woodland (A4.2)	CF	130.29	2.77	124.980	124.980	6.665	5.333	N/A	N/A	N/A
	CF>M23b			4.515	4.515	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)
	CF>U4			0.797	0.797	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	104.22	2.22	48.290	1.028	2.150	4.453	N/A	N/A	N/A
	U4a			22.258	0.474	1.571	7.056			
	U4d			0.444	0.009	0.000	0.000			
	U5			16.440	0.350	0.728	4.429			
	U5a			4.322	0.092	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	0.175	0.164	1.998			
	U6a			0.169	0.004	0.000	0.000			
	U6c			2.171	0.046	0.030	1.404			
Semi-Improved Acid Grassland (B1.2)	U4b	77.19	1.65	77.193	1.654	0.728	0.943	N/A	N/A	N/A
Unimproved Neutral Grassland (B2.1)	MG1	1.68	0.04	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	0.06	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	21.88	0.47	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	170.69	3.63	32.577	0.694	2.117	6.498	0.509	1.563	N/A
	M23			0.481	0.010	0.101	21.013	0.000	0.000	
	M23a			0.595	0.013	0.031	5.131	0.000	0.000	
	M23b			18.330	0.390	0.201	1.099	0.059	0.320	
	M25			34.252	0.729	3.054	8.916	1.067	3.116	
	M25b			7.004	0.149	0.413	5.891	0.239	3.409	
	M25c			0.397	0.008	0.010	2.448	0.000	0.000	
	M25-M23b			0.000	0.000	0.000	0.000	0.000	0.000	
	M28			0.043	0.001	0.000	0.000	0.000	0.000	
	MG10a			73.807	1.572	3.150	4.268	0.427	0.579	
	MG10c			3.117	0.066	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	208.31	4.44	106.403	2.266	8.083	7.597	N/A	N/A	N/A
	U20a			6.011	0.128	0.078	1.297			
	U20b			5.018	0.107	0.158	3.152			
	U20c			90.051	1.918	10.251	11.384			
	W25			0.648	0.014	0.084	12.935			
	W25a			0.180	0.004	0.000	0.000			
Tall Ruderal (C3.1)	OV25	0.32	0.01	0.106	0.002	0.007	6.433	N/A	N/A	N/A
	OV27			0.161	0.003	0.009	5.531			
	W24			0.048	0.001	0.000	0.000			
Non-Ruderal (C3.2)	Daff	0.05	0.001	0.000	0.000	0.000	0.000	N/A	N/A	N/A
	U16			0.031	0.001	0.000	0.000			
	U16c			0.000	0.000	0.000	0.000			
	U19			0.016	0.000	0.001	8.081			

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	147.45	3.14	6.642	0.141	0.529	7.968	N/A	N/A	N/A
	H10a			69.404	1.478	5.058	7.289			
	H10b			0.642	0.014	0.041	6.323			
	H10c			12.549	0.267	0.314	2.501			
	H10d			0.047	0.001	0.000	0.000			
	H10-M15			8.950	0.191	0.931	10.404			
	H10-M25			7.635	0.163	0.553	7.243			
	H12			2.559	0.054	0.349	13.632			
	H12a			18.895	0.402	0.908	4.808			
	H12b			0.006	0.000	0.000	0.000			
	H12c			0.664	0.014	0.139	20.908			
	H12-M25			10.859	0.231	1.040	9.582			
	H21			0.139	0.003	0.007	5.249			
	H21a			2.214	0.047	0.204	9.234			
	H9			3.984	0.085	0.303	7.610			
	H9d			1.567	0.033	0.00001	0.001			
	H9-H12			0.692	0.015	0.000	0.000			
Wet Dwarf Shrub Heath (D2)	M15	1865.31	39.72	5.159	0.110	0.345	6.691	0.612	11.867	N/A
	M15a			111.045	2.365	7.445	6.704	1.778	1.601	
	M15b			1021.683	21.756	68.837	6.738	17.738	1.736	
	M15c			703.099	14.972	55.122	7.840	16.576	2.358	
	M15d			4.514	0.096	0.013	0.283	0.021	0.457	
	M15-M17			19.807	0.422	2.027	10.233	0.693	3.498	
Wet Heath/Acid Grassland Mosaic (D6)	M15-U4	1.32	0.03	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	

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)
Blanket Bog (E1.6.1)	M1	688.15	14.65	13.782	0.293	1.103	8.001	0.120	0.868	N/A
	M17			89.734	1.911	7.004	7.805	1.681	1.873	
	M17a			205.015	4.366	13.064	6.372	1.023	0.499	
	M17b			147.415	3.139	6.045	4.101	1.216	0.825	
	M17c			5.922	0.126	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			0.970	0.021	0.070	7.244	0.046	4.716	
	M19			37.982	0.809	0.677	1.784	0.831	2.189	
	M19a			156.828	3.339	6.765	4.314	3.411	2.175	
	M19b			17.804	0.379	1.200	6.742	0.035	0.198	
	M19c			0.119	0.003	0.019	15.651	0.011	9.206	
	M19-M25			1.348	0.029	0.003	0.247	0.005	0.389	
	M2			2.724	0.058	0.154	5.646	0.065	2.381	
	M2a			4.441	0.095	0.400	9.009	0.000	0.000	
	M3			3.796	0.081	0.306	8.055	0.086	2.256	
Wet Modified Bog (E1.7)	M20	321.96	6.86	26.677	0.568	0.765	2.866	0.006	0.023	N/A
	M20a			6.907	0.147	0.074	1.068	0.000	0.000	
	M20b			1.369	0.029	0.044	3.202	0.027	1.975	
	M20-M25			0.768	0.016	0.000	0.000	0.000	0.000	
	M25a			283.893	6.045	21.372	7.528	4.727	1.665	
	PC			2.343	0.050	0.407	17.358	0.000	0.000	
Acid/Neutral Flush (E2.1)	M29x	47.01	1.00	0.351	0.007	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			6.179	0.132	0.377	6.108	0.090	1.457	

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)
	M6b			0.000	0.000	0.000	0.000	0.000	0.000	
	M6c			36.658	0.781	1.628	4.442	0.421	1.148	
	M6d			2.792	0.059	0.185	6.641	0.005	0.187	
	M6-M25			0.490	0.010	0.007	1.434	0.000	0.000	
Basic Flush (E2.2)	M10	11.03	0.23	0.027	0.001	0.000	0.001	0.000	0.000	N/A
	M10a			10.882	0.232	1.118	10.275	0.088	0.809	
	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			0.091	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	0.0002	0.009	0.0002	0.000	0.000	0.000	0.000	N/A
Bare Peat (E4)	ExP	0.46	0.01	0.463	0.010	0.036	7.696	0.001	0.259	N/A
Swamp (F1)	S4	0.45	0.01	0.354	0.008	0.000	0.000	0.000	0.000	N/A
	S9			0.014	0.000	0.000	0.017	0.000	0.000	
	S9a			0.080	0.002	0.005	6.843	0.000	0.000	
Standing Water (G1)	OW	48.76	1.04	0.995	0.021	0.000	0.000	N/A	N/A	N/A
	SW			47.761	1.017	0.049	0.102			
Running Water (G2)	RW	27.96	0.60	27.958	0.595	0.830	2.969	N/A	N/A	N/A
Dense Continuous Saltmarsh (H2.6)	SM16	6.17	0.13	6.170	0.132	0.014	0.228	N/A	N/A	N/A
Quarry (I2.1)	QY	2.15	0.05	2.15	0.05	0.0001	0.004	N/A	N/A	N/A
Amenity Grassland (J1.2)	PG	1.34	0.03	1.345	0.029	0.000	0.000	N/A	N/A	N/A
Introduced Shrub (J1.4)	RP	6.99	0.15	6.990	0.150	0.031	0.448	N/A	N/A	N/A
Building (J3.6)	BD	5.228	0.11	5.224	0.111	0.176	3.369	N/A	N/A	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)
Bare Ground (J4)	BG	107.63	2.29	107.630	2.292	6.881	6.393	N/A	N/A	N/A
Other Habitat (J5)	DG	0.61	0.01	0.606	0.013	0.087	14.362	N/A	N/A	N/A
Non-Surveyed Area (NSA)	NSA	0.15	0.003	0.153	0.003	0.000	0.000			
		4696.20	**100.000**	**4696.196**	**100.000**	**282.557**		**53.667**		**70.194**