CHAPTER 8: ECOLOGY

8. Ecology

8.1 Executive Summary

8.1.1 This Chapter considers the potential impacts and their associated effects on ecological features, such as designated nature conservation sites, habitats and protected species in line with best practice guidance from the Chartered Institute of Environmental Management (CIEEM).

8.1.2 The study area was surveyed in 2019 to provide baseline information on habitats and faunal species. Surveys included an extended Phase 1 habitat survey and National Vegetation Classification (NVC) surveys. The dominant habitats were wet modified bog, blanket bog and wet heath. Five potential Groundwater Dependent Terrestrial Ecosystems (GWDTE) were recorded but these are unlikely to be groundwater dependent in the setting of the study area. Protected species surveys identified the presence of numerous water vole burrows, two potential otter holts and a resting place, mountain hare, brown trout, European eel, common frog, an unidentified newt, common lizard and red deer. The newt and fish species were present at low densities, with the rest of the species common and widespread throughout the study area.

8.1.3 Without application of mitigation, significant effects in terms of the EIA Regulations are predicted on the Monadhliath Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) and otter. Adverse effects not significant in EIA terms are also considered to occur from pollution events on habitats, water vole and otter.

8.1.4 Following the application of mitigation, such as a deer management plan and standard working methods and good practice measures during construction, no significant residual effects are predicted.

8.2 Introduction

8.2.1 This Chapter considers the potential effects on ecology and nature conservation resulting from impacts associated with the construction, operation and decommissioning of Cloiche Wind Farm (the Proposed Development). The specific objectives of the Chapter are to:

- describe the assessment methodology and significance criteria used in completing the impact assessment;
- describe the ecological baseline of the Proposed Development and its zone of influence (ZOI)[1], including designated nature conservation sites, habitats and protected species;
- describe the potential impacts, including direct and indirect, on ecological features and assess whether they would result in significant effects;
- describe the mitigation measures proposed to address likely significant effects;
- assess the significance of residual effects remaining following the implementation of mitigation; and

[1] The area over which ecological features may be subject to significant effects as a result of the Proposed Development and its associated activities.

- assess the significance of cumulative effects between the Proposed Development and cumulative developments.

8.2.2 Effects on ornithological features are addressed separately in Chapter 9: Ornithology.

8.2.3 This Chapter is based on the Proposed Development as described in Chapter 3: Description of Development and has been completed in accordance with the CIEEM Ecological Impact Assessment (EcIA) guidelines (CIEEM, 2016). The Chapter has been written by Ramboll UK Limited (Ramboll). Desk and field survey work was also undertaken by Ramboll surveyors with 16, six and a half, and six years of professional ecological consultancy experience. All field surveys were led by surveyors with Associate or Member level of CIEEM.

8.2.4 Figures and Technical Appendices are referenced in the text, where relevant. This Chapter is supported by the following figures:

- Figure 8.1: Designated Sites;
- Figure 8.2: Phase 1 Habitats;
- Figure 8.3: Target Notes;
- Figure 8.4: Protected Species; and
- Figure 8.5: GWDTE.

8.2.5 This Chapter is also supported by the following Technical Appendices:

- Technical Appendix 8.1: Methodologies and Results;
- Technical Appendix 8.2: Photolog;
- Technical Appendix 8.3: Habitats Regulations Appraisal and Appropriate Assessment;
- Technical Appendix 8.4: Existing Data on Fish Populations and Stream Hydrochemistry;
- Technical Appendix 8.5: Deer Management Plan;
- Technical Appendix 8.6: Outline Habitat Management Plan;
- Technical Appendix 8.7: Stronelairg Deer Management Plan; and
- Technical Appendix 8.8: Monadhliath Deer Management Group Strategic Deer Management Plan.

8.3 Scope of Assessment

Effects to be Assessed

8.3.1 This Chapter considers effects on the following ecological features:

- designated nature conservation sites;
- habitats, such as peatlands and wetlands, potentially affected by habitat loss and fragmentation;
- Groundwater Dependent Terrestrial Ecosystems (GWDTE);
- protected mammals, such as otter (*Lutra lutra*) and water vole (*Arvicola amphibius*);
- fish, such as brown trout (*Salmo trutta*) and European eel (*Anguilla anguilla*);
- amphibians, such as common frog (*Rana temporaria*), common toad (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*) and palmate newt (*L. helveticus*); and

- reptiles, such as common lizard (*Zootoca vivipara*).

8.3.2 The Chapter assesses cumulative effects arising from the addition of the Proposed Development to other developments currently in the planning process. Wind farms that are operational are considered as part of the baseline unless their full environmental effects are not yet known.

Study Areas

8.3.3 The field study area for this assessment includes the area within the site boundary and a buffer distance of 250m beyond the site boundary, as shown on Figure 8.2. There is a separate desk study area, within which desk study information was gathered. The desk study area includes the area within the site boundary and a 10km buffer around the site boundary, as shown on Figure 8.1.

8.3.4 The site boundary was amended following the completion of field surveys but the data collected is still considered to cover the areas that could potentially be affected by the Proposed Development. The areas outwith the field study area but within the site boundary occur around existing access tracks for Stronelairg Wind Farm and/or occur on areas previously disturbed by the construction of Stronelairg Wind Farm.

Consultation Reponses

8.3.5 Full details on the consultation responses and scoping opinion can be reviewed in Chapter 5: Scoping and Consultation, and associated appendices. Table 8.1 summarises the scoping and consultation responses relevant to ecology and nature conservation and provides information on where and/or how they have been addressed in this assessment.

Table 8.1: Consultation Responses

Consultee and Date	Issue Raised	Response/Action Taken
Scoping Consultation Responses		
Scottish Environment Protection Agency (SEPA)	Information detailed in Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems should be submitted.	A map demonstrating the locations of all potential GWDTE has been provided as Figure 8.5. As the minimum buffers have not been achieved, a site-specific qualitative risk assessment has been undertaken, as detailed in paragraph 8.6.14. Further consultation with SEPA, described below, agreed that the GWDTE identified are unlikely to be groundwater dependent.
Scottish Natural Heritage (SNH)	A full assessment of the impacts of the Proposed Development on the Monadhliath SAC and associated SSSI and River Spey SAC and associated SSSI should be included in the EIA Report.	A Habitats Regulations Appraisal (HRA) has been undertaken for the Monadhliath SAC and SSSI and is provided as Technical Appendix 8.3. An assessment of the impacts on the River Spey SAC and SSSI is provided in Table 8.2.
	Monadhliath SAC/SSSI - The distinction between the National (SSSI) and International (SAC) designation should be recognised.	This has been recognised when comparing the geographic importance of an SAC (international) to a SSSI (national). The potential effects on each designation have been assessed independently considering the relevant designated features considered or known to be present in the study area.
	A deer management plan including measures to mitigate adverse impacts on the Monadhliath SAC/SSSI which may arise through the displacement of deer should be included in the EIA Report. Refer to: http://www.snh.gov.uk/land-and-sea/managing-wildlife/managing-deer/ http://www.bestpracticeguides.org.uk/planning_dmps.aspx	A deer management plan is included as Technical Appendix 8.5.
	The deer management plan should take into account the management of deer on neighbouring land and the neighbouring wind farms to ensure that the objectives are complimentary.	The deer management plan takes into account existing plans and measures described in the Stronelairg Deer Management Plan and the Strategic Deer Management Plan (SDMP) for the Monadhliath Deer Management Group (MDMG), provided as Technical Appendix 8.7 and Technical Appendix 8.8, respectively.
	River Spey SAC/SSSI - Potential impacts of pollution or sediments produced during construction on the River Spey SAC/SSSI should	Potential impacts are assessed in Table 8.2 and considered unlikely due to a lack of hydrological connectivity between the Proposed

Consultee and Date	Issue Raised	Response/Action Taken
	be assessed in the EIA Report and mitigation measures included as necessary.	Development and the River Spey catchment. As a result, mitigation measures beyond the standard pollution prevention measures are not considered necessary.
	If the Applicant is able to commit to undertaking all construction work in accordance with SEPA's good practice guidelines then any adverse impacts on the SAC/SSSI should be avoided.	The Applicant is able to commit to this, as detailed in paragraph 8.8.8.
	If all infrastructure associated with the wind farm proposal is located outside the River Spey catchment the River Spey SAC/SSSI could be scoped out.	All infrastructure is located outside the River Spey catchment and potential impacts are therefore not considered possible.
	In addition to the peat depth survey, NVC survey and Peat Landslide Hazard and Risk Assessment, the assessment of potential impacts on carbon-rich soils, deep peat and priority peatland habitat will be assisted by: - Mapping of any artificial drainage (ditches, grips etc.); - Mapping of areas of bare peat; - Observations of any nationally rare or scarce species; - Identification of bog-moss (*Sphagnum sp.*) to species level; and - Identification of montane (alpine) features in the vegetation (species, wind-pruning etc.).	Artificial drainage features and areas of bare peat are mapped on Figure 8.2. Observations of plant species and montane features are detailed in Technical Appendix 8.1: Methodologies and Results.
	An Outline Habitat Management Plan (OHMP) to demonstrate how impacts on habitats and species will be addressed should be included in the EIA Report.	An OHMP is provided as Technical Appendix 8.6.
	The EIA Report should include wildcat, otter, bats and water vole and possibly pine marten, red squirrel and badger should suitable habitat be found on the development site or areas off-site, such as access routes that will need to be adapted as a result of this proposal.	Suitable habitat for wildcat, bat species, pine marten, red squirrel and badger is not present in the study area and these species are scoped out of the EIA Report. As access would use the existing Stronelairg Wind Farm access track, no off-site access routes need adapted as part of the Proposed Development. Potential impacts on water vole and otter are considered in section 8.7.
	All species surveys should be undertaken by suitably qualified field ecologists in accordance with standard methodologies. These	Species surveys were undertaken by suitably qualified ecologists in accordance with standard methodologies, as described in Technical

Consultee and Date	Issue Raised	Response/Action Taken
	methods should be detailed along with the results and any mitigation measures in the EIA Report, in a confidential annex, if necessary.	Appendix 8.1: Methodologies and Results. Results relevant to the EIA are provided in section 8.6, with more detailed results provided in Technical Appendix 8.1. Mitigation measures related to protected species are described in section 8.8. A confidential annex for protected mammal species was not considered necessary.
	Due to the mobile nature of these animals, even if not found on-site, if suitable habitat is present then a species protection plan should be included in the EIA Report which details what mitigation and other action will be taken should a protected species or their resting place be found during construction.	Site-specific species protection plans would be included as standard, as detailed in paragraph 8.8.6, primarily covering the species known to be present in the study area, such as water vole and otter. The habitat is not considered suitable for wildcat, bat species, pine marten, red squirrel and or badger.
	The results of the NVC and Phase 1 surveys should be presented in the EIA Report.	Detailed results are provided in Technical Appendix 8.1: Methodologies and Results. Results relevant to the EIA are provided in section 8.6 and shown on Figure 8.2 and Figure 8.5 for the Phase 1 and NVC results, respectively.
	The NVC survey should cover the development site, the new access track and a suitable buffer and include all Annex 1 and Biodiversity Action Plan (BAP) Priority Habitats and GWDTE.	The NVC survey covered everything within the site boundary and a buffer of 250m beyond the site boundary.
	The EIA Report should fully consider the potential natural heritage impacts of vehicle movements, track creation and modification along the full length of the proposed routes, including those outside the development area. Refer to: - 'Constructed Tracks in the Scottish Uplands'; and - 'Forests and Water Guidelines" (4th edition)'.	All potential natural heritage impacts are considered and detailed in section 8.7. Further details on traffic and transport impacts are also provided in Chapter 13: Traffic and Transport. No access track creation is proposed outwith the development area as access to the Proposed Development would use the existing access track for Stronelairg Wind Farm. However, the full extent of any required access improvement works would be determined following the selection of wind turbines for the site.
Marine Scotland Science (MSS)	Priority Species brown trout and Arctic charr (*Salvelinus alpinus*) inhabit waterbodies within and immediately downstream of the Proposed Development area. Electrofishing should be carried out to assess the presence and abundance of fish species of high conservation value and results outlined in the EIA Report.	Following further consultation, MSS agreed with the Applicant's proposed precautionary approach to fish, which assumes that brown trout and European eel, the latter likely in low densities, are present in all watercourses, without the need for updated electrofishing surveys.

Consultee and Date	Issue Raised	Response/Action Taken
Royal Society for the Protection of Birds (RSPB)	A detailed Habitat Management Plan (HMP) should be prepared and submitted as part of the proposals. This should contain detailed ecological justification for any habitat management proposals. The scheme should avoid any development on deep peat and seek to enhance key habitats such as blanket bog occurring within the area.	An OHMP is provided as Technical Appendix 8.6, which aims to restore and enhance blanket bog in the study area. Deep peat has been avoided, where possible, throughout the design of the Proposed Development. Floating tracks would be used on areas of peat deeper than 1m, where practicable. Further details on construction design and the avoidance of deep peat can be found in Chapter 2: Site Selection and Design Evolution and Chapter 11: Geology and Carbon Balance, respectively.
Pre-Application Advice		
MSS 13 August 2019	MSS advises that water quality and fish population data are collected and that proposed mitigation measures and monitoring programmes are designed for the Proposed Development.	The Applicant has made a commitment to undertake electrofishing surveys to establish a pre-construction baseline. The results of previous electrofishing surveys are summarised in paragraph 8.6.19 and provided in full in Technical Appendix 8.4: Existing Data on Fish Populations and Stream Hydrochemistry. Mitigation measures are detailed in section 8.8. Water quality monitoring measures are discussed in Chapter 10: Hydrology and Hydrogeology.
SEPA 31 October 2019	Taking into consideration the submitted GWDTE assessment and our own assessment of the site then we are content that the potential GWDTE habitats are not likely to be groundwater dependant in this setting and are therefore not a significant site constraint. M15 is nonetheless an Annex 1 habitat so the final submission should include generic measures to minimise and mitigation impacts (such as minimising footprint within area and suitable drainage).	General mitigation and good practice measures to minimise impacts in the areas classified as NVC habitat type M15 (*Scirpus cespitosus-Erica tetralix* wet heath) are detailed in section 8.8. Measures include minimising the footprint in the area, floating tracks and suitable drainage.
	Based on our experience with Stronelairg windfarm, peat and specifically deep peat, will be a significant constraint on development. The application will need to demonstrate how impacts on deep peat have been avoided, first via layout and then secondly by construction design (floating / piling etc).	Deep peat has been avoided, where possible, throughout the design of the Proposed Development. Floating tracks would generally be used on areas of peat deeper than 1m, where practiable. Further details on construction design and the avoidance of deep peat can be found in Chapter 2: Site Selection and Design Evolution and Chapter 11: Geology and Carbon Balance, respectively.

8.4 Legislation, Policy and Guidance

8.4.1 The scope of the assessment has been informed by the following policy and legal framework:

- EC Directive on the Conservation of Natural Habitats and Wild Flora and Fauna, 92/43/EEC (European Commission, 1992);
- the Wildlife and Countryside Act (1981) (as amended);
- the Conservation (Natural Habitats Etc.) Regulations (1994) (as amended);
- Nature Conservation (Scotland) Act (2004) (as amended);
- Wildlife and Natural Environment (Scotland) Act (2011);
- UK BAP (Joint Nature Conservation Committee (JNCC), 2010a);
- Scottish Planning Policy (Scottish Government, 2014);
- the Scottish Biodiversity List (Scott Wilson, 2005);
- the 2020 Challenge (Scottish Government, 2013); and
- the Highland BAP (The Highland Council (THC), 2015).

8.5 Methodology

8.5.1 The assessment methodologies, including field survey methodology and significance criteria, are described in Technical Appendix 8.1: Methodologies and Results.

8.6 Baseline

Current Baseline

Desk Study

Statutory Designated Nature Conservation Sites

8.6.1 No statutory designated nature conservation sites for ecological features occur within the site boundary of the Proposed Development. Designated nature conservation sites related to ornithology are considered in Chapter 9: Ornithology. SSSIs notified for geological features are discussed in Chapter 11: Geology and Carbon Balance. Designated sites of ecological importance located within 10km of the Proposed Development are shown on Figure 8.1. Table 8.2 details the relevant designated nature conservation sites that have potential connectivity with the Proposed Development. All other designated nature conservation sites are detailed in Technical Appendix 8.1: Methodologies and Results.

Table 8.2: Designated Sites

Site Name	Qualifying Feature(s)	Distance from Proposed Development at Closest Point	Connectivity with Proposed Development
Monadhliath SAC and SSSI	SAC: Blanket bog SSSI: Blanket bog, upland habitats, vascular plants (including sheathed sedge (*Carex vaginata*), alpine lady-fern (*Athyrium distentifolium*) and Scottish asphodel (*Tofieldia pusilla*)), and black mountain moth (*Glacies coracina*).	50m to the south-east	Occurs adjacent to the site boundary of the eastern area of the Proposed Development, therefore direct and indirect impacts are possible.
River Spey SAC and SSSI	Otter, freshwater pearl mussel (*Margaritifera margaritifera*), sea lamprey (*Petromyzon marinus*) and Atlantic salmon (*Salmo salar*).	4.77km to the south	Separated from the Proposed Development by a range of hills. There is no direct connection of watercourses from within the site boundary to the River Spey catchment, therefore potential impacts are not considered possible.
Ness Woods SAC	Otter, western acidic oak woodland and mixed woodland on base-rich soils associated with rocky slopes.	3.73km to the west	Glendoe reservoir lies within the site boundary and discharges into the River Tarff to the west, outwith the site boundary. Otter are likely to travel between these watercourses and waterbodies and indirect impacts are therefore possible.

Ancient Woodland and Non-statutory Designated Nature Conservation Sites

8.6.2 No areas of ancient woodland or woodland on the semi-natural woodland inventory (SNH, 2011) occur where works are proposed, as shown on Figure 8.1. Small areas of ancient woodland and semi-natural woodland occur within the site boundary at Glen Doe and run parallel to the existing access track for Stronelairg Wind Farm. An area of semi-natural woodland also occurs around the access track where it leaves the B862 Military Road. Indirect impacts are possible on these ecological features. No other non-statutory designated nature conservation sites occur.

Local BAP

8.6.3 The Proposed Development occurs in the Highlands BAP area. The BAP covers the period of 2015-2020. The priority habitats and species that are present in the Highlands and included in the BAP and are considered to be relevant to the Proposed Development based on the habitats and species recorded in the study area are detailed in Table 8.3.

Table 8.3: Relevant Habitats and Species Included in the Highlands BAP (THC, 2015)

Habitat	Species
Peatland, particularly blanket bog and wet heath	Common toad
	European eel
	Brown trout
	Water vole
	Wildcat
	Mountain hare (*Lepus timidus*)
	Brown hare (*L. europaeus*)
	Otter
	Pine marten
	Common lizard

Protected or Notable Species

8.6.4 The Highland Biological Recording Group (HBRG) identified numerous protected and notable species in the desk study area and full details are provided in Technical Appendix 8.1: Methodologies and Results. The following are considered to be protected or notable species relevant to the Proposed Development:

- amphibians (common frog, common toad and palmate newt);
- juniper (*Juniperus communis*);
- heath cudweed (*Gnaphalium sylvaticum*);
- common lizard;
- water vole;
- wildcat;
- brown hare and mountain hare;
- otter; and
- pine marten.

8.6.5 Deer vehicle collisions have been recorded on most larger roads in the desk study area between 2010 and 2017, as shown on Figure 8.1. No deer vehicle collisions have been recorded on the existing Stronelairg access track.

Stronelairg Wind Farm Environmental Statement 2012

8.6.6 The majority of the study area was recorded as wet modified bog and blanket bog, with dry heath, montane heath, wet heath and acid flushes in smaller proportions. The study area was assessed as having low suitability for bat species, with a single soprano pipistrelle (*Pipistrellus pygmaeus*) recorded between Meall Caca and Sidhean Dubh na Cloiche Bàine. No field signs of wildcat, pine marten or badger were recorded. Water vole burrows were recorded along several watercourses, including the Allt Mor, Caochan Uchdach and Allt Creag Chomaich. There were few otter field signs, with no holts or resting places recorded. Common frog and common lizard were widespread.

8.6.7 Brown trout were recorded in the study area, with all watercourses considered to be inaccessible to Atlantic salmon.

8.6.8 Other species recorded were mountain hare, red deer (*Cervus elephus*), red fox (*Vulpes vulpes*) and short-tailed field vole (*Microtus agrestis*).

Field Surveys

8.6.9 Full details of the results of the field surveys undertaken for the Proposed Development are provided in Technical Appendix 8.1: Methodologies and Results. Photographs taken during surveys are provided in Technical Appendix 8.2: Photolog. The results below only present the information on the ecological features required to undertake the impact assessment.

Phase 1 Habitats

8.6.10 The dominant habitats present in the study area are blanket bog, wet modified bog and wet heath, as shown on Figure 8.2. Target notes are shown on Figure 8.3 and described in Technical Appendix 8.1: Methodologies and Results. All potentially sensitive habitats recorded in the study area are detailed in Table 8.4.

Table 8.4: Habitat Types

Habitat Type	Area (ha)
Blanket bog	464.53
Wet modified bog	1,650.06
Dry modified bog	1
Wet heath	58.31
Wet heath/acid grassland mosaic	164.65
Dry heath	30.30
Unimproved acid grassland	180.36
Inundation vegetation	0.48
Standing water	59.54
Bare peat	30.26

8.6.11 Running water habitat is also present in the study area, including the Allt Mor, Allt Creag Chomaich and River Tarff. A number of watercourse crossings occur as part of the Proposed Development and further details are provided in Technical Appendix 10.3: Watercourse Crossings.

8.6.12 No trees occur in the study area where work would occur. Trees present outwith the area where work would occur are detailed in paragraph 8.6.2.

8.6.13 No invasive non-native plant species were recorded during surveys.

GWDTE

8.6.14 Five potential GWDTE were recorded in the study area, as shown on Figure 8.5. Five further smaller potential GWDTE were recorded as Target Notes 92-94, 98 and 100 on Figure 8.5. Table 8.5 provides further information on the potential GWDTE recorded in the study area. Table 8.6 provides details on the GWDTE target notes. Further information on the hydrological and hydrogeological sensitivity of the identified GWDTE and where there are interactions with the Proposed Development is provided in Technical Appendix 10.1: GWDTE Assessment.

Table 8.5: Potential GWDTE Types

Groundwater Dependency	Vegetation Community
High	M6 *Carex echinata-Sphagnum recurvum* mire
	M10 *Carex dioica-Pinguicula vulgaris* mire
	M32 *Philonotis fontana-Saxifraga stellaris* spring
Moderate	M15 *Scirpus cespitosus-Erica tetralix* wet heath
	M25 *Molinia caerulea-Potentilla erecta* mire

Table 8.6: Potential GWDTE Target Notes

Target Note Number	Comment
92	M25 *Molinia caerulea-Potentilla* erecta mire (small flush)
93	M32 *Philonotis fontana-Saxifraga stellaris* spring
94	M10 *Pinguiculo-Caricetum dioicae* mire (stony flush)
98	Flush (M6 *Carex echinata-Sphagnum recurvum* mire) in a wet channel with grasses and hare's-tail cottongrass.
100	Flush with wet heath/acid grassland mosaic at top and marshy grassland, which may be classed as M6 *Carex echinata-Sphagnum recurvum* mire/M25 *Molinia caerulea-Potentilla* erecta mire lower down slope where peat is >0.5m

8.6.15 Although five potential GWDTE have been identified in the study area with high and moderate groundwater dependency based on their floral composition, in terms of their hydrological characteristics these are considered to have low or no groundwater dependency, as described in Technical Appendix 10.1: GWDTE Assessment. As a result, the importance of these habitats has been assessed by their sensitivity as wetlands and peatlands rather than as GWDTE.

Protected and Notable Species

8.6.16 Water vole burrows and field signs were recorded on most watercourses throughout the study area, as shown by Target Notes 4-6, 8-16, 22, 25, 29, 31-32, 36, 38-39, 42-43, 45-47, 49-53, 55, 63-64, 67-69, 71, 76-77, 96 and 101 on Figure 8.3 and on Figure 8.4. A single burrow occurs 5.9m from a proposed access track where it crosses the Allt Mor, as shown by Target Note 8 on Figure 8.3.4 and on Figure 8.4.4. No other burrows were recorded in the vicinity of the Proposed Development.

8.6.17 Five otter holts and a resting place were recorded in the study area on the Allt Uaine Mhachair, River Tarff and a tributary of Dearg Lochan, as shown by Target Notes 30, 35, 37, 41 and 57 on Figure 8.3.2, Figure 8.3.4 and Figure 8.3.5, and on Figure 8.4.2, Figure 8.4.4 and Figure 8.4.5. Two holts and the resting place are located over 200m from the Proposed Development, as shown on Figure 8.3.2 and Figure 8.3.5, and Figure 8.4.2 and Figure 8.4.5. One potential holt occurs 105m from a proposed access track location, as shown on Figure 8.3.2 and Figure 8.3.4. Two potential holts occur 115m and 166m from a proposed borrow pit where blasting may occur, as shown on Figure 8.3.4 and Figure 8.4.4. Otter spraints and footprints were also recorded in the study area on the tributary of Loch na Lairige, the Allt Mor, tributaries of Glendoe reservoir, Caochan Uilleim, Allt Creag Chomaich, a tributary of Dearg Lochan, Allt na Feithe Gobhlaich and Allt Lochan Iain, as shown by Target Notes 2-3, 7, 19-20, 23, 25, 27, 34, 44, 65, 70 and 74-75 on Figure 8.3 and on Figure 8.4.

8.6.18 Mountain hare sightings were recorded throughout the study area, as shown by Target Notes 38, 40, 54, 72 and 79 on Figure 8.3 and on Figure 8.4.

8.6.19 Brown trout are present in watercourses draining the study area but at a low population density. Barriers to fish passage make the study area inaccessible to most fish species, with the exception of European eel, which may be present on the site in low densities due to its ability to move over land. The full details of fish surveys undertaken in the study area previously are provided in Technical Appendix 8.4: Existing Data on Fish Populations and Stream Hydrochemistry.

8.6.20 Common frog sightings were recorded throughout the study area, as shown by Target Notes 33, 40, 48, 62, 66, 73 and 78 on Figure 8.3 and on Figure 8.4.

8.6.21 Common lizard sightings were recorded throughout the study area, as shown by Target Notes 17, 18, 21, 24, 26, 28, 54 and 58-60 on Figure 8.3 and on Figure 8.4.

8.6.22 A single newt was recorded in a ditch close to the River Tarff, as shown by Target Note 61 on Figure 8.3.2 and on Figure 8.4.2. The sighting was too brief to determine species but it was likely to be a smooth newt or palmate newt given the size and colouring.

8.6.23 Red deer sightings were recorded throughout the study area.

Future Baseline

8.6.24 The future baseline of the ecological study area under the "do nothing" scenario is unlikely to change significantly in the absence of the Proposed Development. The majority of the upland peatland habitats are already modified by weather and animal erosion leading to extensive areas of peat hagging and bare peat. It is considered possible that the areas of blanket bog could continue to degrade, increasing the area of wet and dry modified bog.

8.6.25 The main factor dictating the species present is the land use of the habitats in the study area. The main land uses are upland grazing for sheep, moorland managed for hunting and the operational hydro scheme. Climate change may also have an effect on species distribution. The land use practices are expected to continue unchanged under the "do nothing" scenario. Therefore, the distribution of species present within the study area and the surrounding habitat is unlikely to change significantly in the future.

Effects Scoped out of Assessment

Habitats

8.6.26 Habitats assessed to be of less than local value are scoped out from further consideration in this assessment on the basis that effects on these habitats would not be considered significant in terms of the EIA Regulations given their low ecological value. This includes unimproved acid grassland and bare peat.

Protected Species (Bats, Red Squirrel, Wildcat, Pine Marten and Badger)

8.6.27 As the study area does not contain habitats suitable to support bat species, red squirrel (*Sciurus vulgaris*) or badger (*Meles meles*) and no records of these species were made during field surveys, they are not considered further in this assessment. No records of wildcat or pine marten were recorded and the habitats in the study area are considered to be of low suitability for these species, therefore, they are not considered further in this assessment.

Invertebrates

8.6.28 Surveys of this species group were considered unnecessary as the EcIA adopts a precautionary approach and includes appropriate mitigation, where required, to avoid significant effects.

Disease Transfer

8.6.29 No common juniper (*Juniperus communis*) was recorded in the study area, therefore biosecurity measures for the control of austrocedrus root disease (*Phytophthora austrocedrae*), a fungus-like organism which infects the plant via the roots and causes foliage to decline and eventually die, is considered unnecessary and disease transfer impacts are scoped out of further assessment.

Summary of Important Ecological Features

8.6.30 A summary of the ecological features identified as being sensitive to the Proposed Development and that have been 'scoped-in' to the assessment is given in Table 8.7, together with the justification for their inclusion.

Table 8.7: Summary of Important Ecological Features

Feature	Importance	Justification
Monadhliath SAC and SSSI	International (SAC) and National (SSSI)	The SAC contains one of the most extensive areas of high-altitude blanket bog in the UK. SACs are also designated as internationally important sites for nature conservation. The SSSI contains several rare vascular plants and the nationally scarce black mountain moth, therefore the SSSI is considered to be of national importance.
Ness Woods SAC	International	The SAC contains the best example of ravine woodland in Scotland, which is an Annex 1 (European Commission, 1992) habitat alongside the old sessile oak woods. Otter, another qualifying feature, are an Annex II (European Commission, 1992) species. SACs are designated as internationally important sites for nature conservation.
Ancient and semi-natural woodland	Regional	Ancient woodland contains remnants of Scotland's original forests, preserving the integrity of ecological processes in the soil and its associated biodiversity. Once destroyed, ancient woodland cannot be recreated. Although no legislation specifically protects ancient woodland, there is a strong presumption against removing ancient semi-natural woodland or plantations on ancient woodland sites (SNH, 2011). Ancient woodland is present in small, scattered areas in the Highlands and is considered to be of regional importance.
Peatlands (blanket bog, wet and dry modified bog, wet and dry heath, and wet heath/acid grassland mosaic)	County	These habitat types are included in Annex 1 of the EC Habitats Directive (European Commission, 1992) and the Highlands BAP (THC, 2015) and are sensitive to environmental change, such as changes to hydrology, carbon function, species composition and nutrient status. Much of the peatland habitat in the UK is in poor condition due to drainage, grazing pressure and damage from peat extraction. The examples of blanket bog within the study area are generally in poor condition and dominated by areas of wet modified bog subject to significant hagging and erosion, with extensive areas of bare peat. The wet and dry modified bog in the study area have the potential to return to active, peat-forming blanket bog following active management. However, there are peatlands within the Highlands in better condition and, as such, this feature is considered to be of county importance.
Wetlands (acid/neutral flush, spring and inundation vegetation)	County	Wetlands are sensitive to changes in hydrology and hydrogeology. Upland flushes are a priority habitat in the UK BAP (JNCC, 2010). The examples of these habitat types in the study area are generally in good condition, with increased diversity and naturalness compared to surrounding habitats, such as bog. Due to the small areas present in the study area, with larger expanses present in the wider area, this feature is considered to be of county importance.
Standing and running water	Local	Several watercourses and lochans occur in the study area, including the River Tarff, Glendoe reservoir and Lochan Iain. Standing and running water provides habitat

Feature	Importance	Justification
		for otter, water vole, amphibians and invertebrates, which are all common and widespread in the area. As a result, this feature is considered to be of local importance.
Water vole	County	Water vole are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (1981) and are included in the Highlands BAP (THC, 2015). Scotland supports 40% of the UK population, mostly in the Highlands (Capreolus Wildlife Consultancy, 2005). Water vole activity was recorded on the majority of watercourses in the study area and included protected burrows[2], footprints and latrines. Given the high level of activity recorded, the water vole population in the study area is considered to be of county importance.
Otter	County	Otter are listed as a European Protected Species (EPS) under the EC Habitats Directive (European Commission, 1992) and are included in the Highlands BAP (THC, 2015). Five protected holts and a resting place were recorded in the study area on the Allt Uaine Mhachair, River Tarff and a tributary of Dearg Lochan. Given the high level of activity recorded, the population of otter using the study area is considered to be of county importance.
Mountain hare	Local	Mountain hare are included in the Highlands BAP (THC, 2015) and are widespread in the study area and in the surrounding area. As a result, they are considered to be of local importance.
Fish (brown trout and European eel)	Local	Brown trout are a priority species in the UK Post-2010 Biodiversity Framework (2012) and both brown trout and European eel are included in the Highlands BAP (THC, 2015). Both species are considered to occur at low levels in the study area and, as a result, are considered to be of local importance.
Amphibians (common frog and newt species)	Local	Amphibians are included in the Highlands BAP (THC, 2015) and are widespread in the study area and in the surrounding area. As a result, they are considered to be of local importance.
Reptiles (common lizard)	Local	All reptiles are protected under the Wildlife and Countryside Act 1981 (1981) from intentional killing or injury. Common lizard are also included in the Highlands BAP (THC, 2015) and are widespread in the study area and in the surrounding area. As a result, they are considered to be of local importance.
Red deer	Local	Red deer are widespread throughout the study area and in the surrounding area. As a result, they are considered to be of local importance.

[2] Structure used for shelter and protected from damage, destruction or obstruction.

8.7 Potential Effects

8.7.1 This section considers the potential impacts and associated effect significance of the construction, operation and decommissioning of the Proposed Development based on the typical activities described in Chapter 3: Description of Development.

Construction Effects

8.7.2 The assessment of likely effects associated with the construction of the Proposed Development is based on the activities described in Chapter 3: Description of Development.

Statutory Designated Nature Conservation Sites

8.7.3 No direct impacts within statutory designated nature conservation sites have been identified. However, construction of the Proposed Development within the vicinity of the Monadhliath SAC and SSSI, and Glendoe reservoir that drains into tributaries of Ness Woods SAC could result in indirect impacts, such as habitat modification, pollution or disturbance. These impacts are considered further in Technical Appendix 8.3: Habitats Regulations Appraisal and Appropriate Assessment. Due to the low magnitude and short-term nature of the potential impacts, the majority of the effects are considered to be **not significant**. However, in the absence of mitigation, the temporary and short-term displacement of red deer into the Monadhliath SAC and SSSI could result in a **significant adverse effect** at the international and national level, respectively, from damage to the blanket bog, which is already in an unfavourable condition.

8.7.4 No impacts on other statutory designated nature conservation sites in the study area are likely to occur and they are not considered further in this assessment.

Non-statutory Designated Nature Conservation Sites

8.7.5 No direct impacts within non-statutory designated nature conservation sites have been identified. However, construction of the Proposed Development could result in habitat modification of ancient and semi-natural woodland along the existing access track at Glen Doe and around the existing Stronelairg site compound from increased vehicle movement during construction, as shown on Figure 8.1. Dust produced from increased vehicle movement could smother small plants in the ground flora and leaves of tree species. This is considered to be a temporary, low magnitude, low frequency, short-term impact on a narrow extent of the edge of the habitat, particularly as the majority of the woodland is separated from the access track by the Allt Doe. As a result, the effect is considered to be **not significant**.

Habitats

8.7.6 Construction activities have the potential to degrade or destroy terrestrial habitat either directly through excavation, compaction, or modification (e.g. vegetation removal) or indirectly as a result of dewatering or from the accidental release of fuels, lubricants or other chemicals. The construction of 36 turbine foundations, 36 hardstanding areas, access tracks, two LiDAR units and a substation would cause permanent habitat loss. The construction of new temporary development areas (two site establishment areas, concrete batching plant(s) and up to nine borrow pits) and the laying of cables between turbines would cause temporary habitat degradation or loss in the short- to medium-term until habitats are reinstated following completion of the Proposed Development. Three borrow pits, the concrete batching plant and a site compound occur on areas

previously used for the construction of Stronelairg Wind Farm. The significance of these effects per habitat type is considered below.

8.7.7 As described in Chapter 3: Description of Development, floating stone road would be used in areas of peat greater than 1m, where practicable. The track construction would ensure hydraulic connectivity is maintained by including measures such as the inclusion of a non-alkaline porous horizon within the track sub-base to prevent the track structure acting as a barrier to natural hydrogeological processes.

8.7.8 Figure 8.2 shows the Proposed Development overlaid on the habitats mapped using the Phase 1 habitat survey methodology.

8.7.9 Table 8.8 and Table 8.9 set out the percentage of permanent and temporary habitat loss by habitat type within the study area, respectively. Direct habitat loss during construction includes the working areas for each turbine site (turbine base and hardstanding area), the area of proposed new stone track, the working areas for the substation, the working areas for two LiDAR units and temporary development areas. Indirect habitat modification is calculated as a 10m buffer around the areas of direct habitat loss as this is considered to represent the worst-case scenario of habitat that is likely to be indirectly modified by the Proposed Development.

8.7.10 Although one borrow pit, the batching plant and the site compound occur outwith the study area, these areas were consented and built for Stronelairg Wind Farm. These areas were either bare or consisted of hardstanding until Summer 2019 and do not occur near watercourses. Therefore, no loss of sensitive habitats is considered to occur in these areas as a result of the Proposed Development and protected species, such as water vole or otter, are not considered to be a constraint.

Table 8.8: Permanent Habitat Loss from Proposed Development During Construction

		Direct Habitat Loss		**Indirect Habitat Modification**	
Habitat	**Total Habitat in Study Area (ha)**	**Area Lost (ha)**	**Percentage Loss (%)**	**Area Modified (ha)**	**Percentage Modified (%)**
Blanket bog	464.53	4.44	0.96	9.48	2.04
Wet modified bog	1,650.06	22.05	1.34	35.57	2.16
Dry modified bog	1.00	0.06	6.00	0.27	27
Wet heath	58.31	2.79	4.79	4.39	7.53
Wet heath/acid grassland mosaic	164.65	1.59	0.97	3.34	2.03
Dry heath	30.30	0.48	1.58	0.56	1.85
Totals	**2,368.85**	**31.41**	**1.33**	**53.61**	**2.26**

Table 8.9: Temporary Habitat Loss from Proposed Development During Construction

		Direct Habitat Loss		Indirect Habitat Modification	
Habitat	**Total Habitat in Study Area (ha)**	**Area Lost (ha)**	**Percentage Loss (%)**	**Area Modified (ha)**	**Percentage Modified (%)**
Blanket bog	464.53	4.89	1.05	1.47	0.32
Wet modified bog	1,650.06	7.14	0.43	1.94	0.001
Wet heath/acid grassland mosaic	164.65	4.15	2.52	1.16	0.71
Totals	**2,279.24**	**16.18**	**0.71**	**4.57**	**0.20**

8.7.11 Without consideration of mitigation, the permanent loss of blanket bog would comprise 13.92ha of the total recorded in the study area. The temporary loss of blanket bog would comprise 6.36ha of the total recorded in the study area. As blanket bog is an Annex 1[3] habitat and much of the blanket bog in Scotland is in poor condition, further loss of this feature is considered to be an adverse effect on a feature of county importance, particularly as the blanket bog in the study area is fragmented by extensive areas of poor-quality modified bog. However, this is considered to be **not significant** under the EIA Regulations as it is an effect on a feature of county importance, as described in Table 8.6.

8.7.12 Without consideration of mitigation, the permanent loss of wet and dry modified bog would comprise 57.95ha of the total recorded in the study area. The temporary loss of wet modified bog would comprise 9.08ha of the total recorded in the study area, with no temporary loss of dry modified bog. Although modified bog has the potential to return to blanket bog, the examples in the study area are extensively hagged and gullied and would require active restoration measures in the medium-term to return to blanket bog. As the modified bog in the study area is of such poor quality, further loss or modification is considered to be **not significant**.

8.7.13 Without consideration of mitigation, the permanent loss of wet heath would comprise 7.18ha of the total recorded in the study area. No wet heath would be temporarily lost as a result of the Proposed Development. As wet heath, particularly M15 wet heath, is an Annex 1 (European Commission, 1992) habitat, loss of this feature is considered to be an adverse effect on a feature of county importance. However, this is considered to be **not significant**.

8.7.14 Without consideration of mitigation, the permanent loss of wet heath/acid grassland mosaic would comprise 4.93ha of the total recorded in the study area. The temporary loss of wet heath/acid grassland mosaic would comprise 5.31ha of the total recorded in the study area. Due to the small proportion of area involved, this effect is considered to be **not significant**.

8.7.15 Without consideration of mitigation, the permanent loss of dry heath would comprise 1.04ha of the total recorded in the study area. No dry heath would be temporarily lost

[3] https://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm

as a result of the Proposed Development. Due to the small proportion of area involved, this effect is considered to be **not significant**.

8.7.16 In the context of the wider area, the Monadhliath mountain range is considered to contain peatland habitats of varying quality similar to the habitats considered above. The exact area of the Monadhliath mountain range is not known but is believed to represent approximately 150,000ha dominated by these peatland habitats (Strath Caulaidh Ltd, 2015). In this context, a total loss of 20.28ha of blanket bog, 66.70ha of wet modified bog, 0.33ha of dry modified bog, 7.18ha of wet heath, 10.24ha of wet heath/acid grassland mosaic and 1.04ha of dry heath is considered to be **not significant**.

8.7.17 Due to the proximity of standing and running water to the Proposed Development, there is potential for pollution or surface water run-off to enter this habitat. Although the magnitude and duration of the impact would depend on the nature of the pollution event, based on a precautionary approach, it has been considered to result in an adverse effect at the local level but this effect is considered to be **not significant**, particularly as the effect would be localised to watercourse crossing areas, with most standing or running water habitat protected from construction activities by a 50m buffer.

Water Vole

8.7.18 A minimum 50m buffer has generally been used around watercourses except where watercourse crossings are required. Watercourse crossings near water vole burrows have been avoided, where possible. One water vole burrow is located 5.9m from a proposed watercourse crossing. This burrow is unlikely to be disturbed or damaged during construction, with the Applicant committing to maintain a minimum exclusion buffer of 5m around the burrow. Construction activities may disturb water vole moving along the watercourses as a result of noise, vibration or light. A small area of habitat is likely to be lost but is unlikely to extend beyond 15m along the watercourse at each watercourse crossing. Watercourse crossings would be suitably designed to allow continued water vole movement along watercourses and would minimise riparian habitat loss. Full details of conceptual watercourse crossing design is provided in Technical Appendix 10.3: Watercourse Crossings. Disturbance would be localised to watercourse crossings and would be a short-term, low magnitude impact on this species. As a result, the effect of construction of the Proposed Development on water vole is considered to be **not significant**.

8.7.19 Pollution from the accidental release of fuels, lubricants or other chemicals as well as changes in drainage patterns and silt released into aquatic habitats could directly affect water vole e.g. from contact with corrosive substances or by coating fur. However, this would typically occur at watercourse crossing areas or the two areas where access tracks for the Proposed Development are located within the 50m watercourse buffer. The magnitude and duration of the impact would depend on the nature of the pollution event but, based on a precautionary approach, it could result in an adverse effect on an ecological feature of county importance, but this effect is considered to be **not significant**.

Otter

8.7.20 Construction activities in the vicinity of the watercourses in the Proposed Development, such as the River Tarff, have the potential to disturb otter moving along the watercourses as a result of noise, vibration or light. Most construction activities would occur a minimum of 50m from watercourses, generally, except at watercourse crossings.

Watercourse crossings would be suitably designed to allow continued otter movement along watercourses and would minimise riparian habitat loss. A small area of habitat is likely to be lost but is unlikely to extend beyond 15m at each watercourse crossing. Full details of conceptual watercourse crossing design is provided in Technical Appendix 10.3: Watercourse Crossings. Disturbance would be localised to watercourse crossings and would be a short-term, low magnitude impact on this species. As a result, the effect of construction of the Proposed Development on otter is considered to be **not significant**.

8.7.21 Watercourse crossings have been avoided near the potential holts and resting place recorded in the study area. As a result, no impacts are predicted on two of the five potential holts and the resting place as the holts and resting place occur a minimum of 200m from the Proposed Development. One potential holt occurs 105m from a proposed access track but a minimum buffer of 100m is considered to be suitable due to the less disturbing nature of the works proposed and no impacts are predicted. Two potential holts occur 115m and 166m from a proposed borrow pit location. If no blasting is to occur, a minimum buffer of 100m is considered to be suitable due to the less disturbing nature of the works. However, if blasting is to occur at the borrow pit, and the potential holts are used for breeding, disturbance of the holt is possible within 200m. If the potential holts are used for breeding, this would be a short-term, moderate magnitude impact and could result in a **significant adverse effect** on a feature of county importance.

8.7.22 Pollution from the accidental release of fuels, lubricants or other chemicals as well as changes in drainage patterns and silt released into aquatic habitats could directly affect otter e.g. from contact with corrosive substances or by coating fur, or indirectly by reducing fish numbers, although the majority of watercourses have poor quality fish habitat and a low density of fish species. The magnitude and duration of the direct impact would depend on the nature of the pollution event but, based on a precautionary approach, this could result in an adverse effect on an ecological feature of county importance but this effect is considered to be **not significant**. As the study area is inaccessible to most fish species and fish species have only been recorded at low densities, the effect of an indirect reduction in fish numbers is considered to be **not significant**.

8.7.23 Construction activities could also result in the direct injury/accidental death of individual otter from increased vehicle traffic on existing and new tracks. However, the design of watercourse crossings that allow continued mammal passage to avoid otters crossing tracks and the low vehicle speed limits (matching those currently used for Stronelairg Wind Farm) would reduce the magnitude and frequency of this impact. As a result, the effect is considered to be **not significant**.

Mountain Hare

8.7.24 Construction activities could result in the direct disturbance or injury/accidental death of individual mountain hare e.g. from vehicle collisions. Construction activities could also have the potential to degrade or destroy mountain hare habitat either directly as a result of, for example, excavation, compaction, or modification (e.g. vegetation removal, covering) or indirectly as a result, for example, of dewatering, or from the accidental release of fuels, lubricants or other chemicals. Some activities could cause permanent degradation or destruction, for example where turbine foundations are constructed or permanent new access tracks are formed, but in most cases, impacts would be temporary and negligible magnitude, due to the small area of habitat involved, on a common species, and the effects are considered to be **not significant**. Mountain hare are also

considered extremely unlikely to be involved in vehicle collisions due to the swift movement and timid nature of this species, therefore impacts would be of a negligible magnitude and the effect is considered to be **not significant**.

Fish

8.7.25 Construction impacts have the potential to result in the degradation or destruction of aquatic habitats inhabited by fish, either directly by excavation or compaction, or indirectly by pollution from the accidental release of fuels, lubricants or other chemicals as well as changes in drainage patterns and silt released into aquatic habitats. Direct effects are considered unlikely due to the protective 50m buffer around watercourses and the avoidance of work in the watercourse at watercourse crossings. Pollution or sediments from construction run-off could also enter watercourses and impact fish species. However, as the study area is inaccessible to most fish species and fish species have only been recorded at low densities, the effect is considered to be **not significant**.

Amphibians

8.7.26 Construction activities could result in the direct disturbance or injury/accidental death of individual amphibians e.g. from vehicle collisions. Construction activities could also have the potential to degrade or destroy amphibian habitat either directly as a result of, for example, excavation, compaction, or modification (e.g. vegetation removal, covering) or indirectly as a result, for example, of dewatering, or from the accidental release of fuels, lubricants or other chemicals. Some activities could cause permanent degradation or destruction, for example where turbine foundations are constructed or permanent new access tracks are formed, but in most cases, impacts would be temporary and negligible magnitude, due to the small area of habitat involved, on a common and low sensitivity species group, and the effects are considered to be **not significant**.

Reptiles

8.7.27 Construction activities could result in the direct disturbance or injury/accidental death of individual reptiles e.g. from vehicle collisions. Construction activities could also have the potential to degrade or destroy reptile habitat either directly as a result of, for example, excavation, compaction, or modification (e.g. vegetation removal, covering) or indirectly as a result, for example, of dewatering, or from the accidental release of fuels, lubricants or other chemicals. Some activities could cause permanent degradation or destruction, for example where turbine foundations are constructed or permanent new access tracks are formed, but in most cases, impacts would be temporary and negligible magnitude, due to the small area of habitat involved, on a common and low sensitivity species group, and the effects are considered to be **not significant**.

Red Deer

8.7.28 Construction activities could result in the direct disturbance and displacement of red deer into habitats surrounding the Proposed Development. The effect of this is considered to be **not significant** as the displacement would be temporary and short-term onto habitat that is common in the surrounding area and deer would return to displaced areas following the completion of construction.

8.7.29 The effect of red deer displacement into the Monadhliath SAC and SSSI is considered in paragraph 8.7.3. and in Technical Appendix 8.3: Habitats Regulations Appraisal and Appropriate Assessment.

Operational Effects

Habitats

8.7.30 Operational impacts on habitats are considered possible through accidental spillage of fuels, chemicals and lubricants during maintenance works that have the potential to enter terrestrial and aquatic habitats, leading to habitat loss or degradation. In the absence of mitigation, this could be an adverse effect on habitats of county importance but this effect is considered to be **not significant**.

Water Vole

8.7.31 Fuel and chemical spills from service vehicles and plant have the potential to enter watercourses and adversely impact water vole by degrading the aquatic habitat and changing the chemical composition of the watercourses. This could be an adverse effect on water vole but this effect is considered to be **not significant** as it is a feature of county importance, particularly as the effect would be localised to watercourse crossing areas, with most watercourses occurring a minimum of 50m from access tracks and turbines.

Otter

8.7.32 Fuel and chemical spills from service vehicles and plant have the potential to enter watercourses and adversely impact otters by degrading the aquatic habitat and either directly killing fish species or indirectly killing their invertebrate prey and changing the chemical composition of the watercourses. This could be an adverse effect on otter but this effect is considered to be **not significant** as it is a feature of county importance, particularly as the effect would be localised to watercourse crossing areas, with most watercourses occurring a minimum of 50m from access tracks and turbines.

Mountain Hare

8.7.33 Operational and maintenance activities could result in the direct disturbance or injury/accidental death of individual mountain hare e.g. from vehicle collisions. However, mountain hare are considered extremely unlikely to be involved in vehicle collisions due to the swift movement and timid nature of this species, therefore impacts would be of a negligible magnitude and the effect is considered to be **not significant**.

8.7.34 No other operational impacts on mountain hare are predicted as no further habitat suitable for use by this species would be lost, with all wind farm activities occurring from access tracks and infrastructure that were established during the construction stage.

Fish

8.7.35 Fuel and chemical spills from service vehicles and plant have the potential to enter watercourses and adversely impact fish species by degrading the aquatic habitat, and either directly killing fish species or killing their invertebrate prey and changing the chemical composition of the watercourses. However, as the study area is inaccessible to most fish species and fish species have only been recorded at low densities, the effect is considered to be **not significant**.

Amphibians

8.7.36 Fuel and chemical spills from service vehicles and plant have the potential to enter watercourses and adversely impact amphibians by degrading the aquatic habitat, and either directly killing amphibians or killing their invertebrate prey and changing the

chemical composition of the watercourses. This could be an adverse effect on amphibians but this effect is considered to be **not significant** as it is a feature of local importance, particularly as the effect would be localised to watercourse crossing areas, with most watercourses occurring a minimum of 50m from access tracks and turbines.

8.7.37 No other operational impacts on amphibians are predicted as no further habitat suitable for use by this species group would be lost, with all wind farm activities occurring from access tracks and infrastructure that were established during the construction stage.

Reptiles

8.7.38 No operational impacts on reptiles are predicted as no further habitat suitable for use by this species group would be lost, with all wind farm activities occurring from access tracks and infrastructure that were established during the construction stage.

Red Deer

8.7.39 No operational impacts on red deer are predicted as no further habitat suitable for use by this species would be lost, with all wind farm activities occurring from access tracks and infrastructure that were established during the construction stage. Red deer are likely to return to areas where they were previously displaced during construction.

Decommissioning Effects

8.7.40 Decommissioning impacts would involve personnel and machinery accessing locations across the study area to dismantle and remove infrastructure, including turbines, hardstanding and site buildings, as detailed in Chapter 3: Description of Development. The wind turbines and substation would be removed to ground level, with the concrete turbine foundations left in-situ and broken down to approximately 1m below ground level. Substation foundations would also be removed. The access tracks and electrical cables would be left in-situ to minimise habitat disturbance. These impacts would be short-term, intermittent and temporary and last weeks or months at any given location. Existing access tracks would be used to access the infrastructure to be decommissioned. As a result, no effects on habitats are predicted, with habitats allowed to recover and regenerate following the removal of infrastructure.

8.7.41 There may be a temporary and short-term disturbance impact on protected species in the study area but this would be restricted to the access tracks and other infrastructure. The effect of this is considered to be **not significant**.

8.8 Mitigation

Mitigation by Design

8.8.1 The layout of the Proposed Development has, where possible, been designed to avoid habitats of highest ecological importance and highest sensitivity to effects, as detailed in Chapter 2: Site Selection and Design Evolution. In the area of the existing Stronelairg Wind Farm, existing infrastructure would be reused including tracks to access the Proposed Development. Borrow pits previously disturbed for Stronelairg would also be re-used. As far as possible, new turbines have been placed outwith or away from the middle of blanket bog habitat, i.e. close to the edge of areas of blanket bog, with the majority placed in areas of poorer quality wet modified bog. It should be noted that where the Proposed Development occurs in area of blanket bog, the locations have been selected to avoid areas of deep peat, where possible, as detailed in Chapter 11: Geology

and Carbon Balance and associated appendices. Where peat depth is >1m, track construction would generally be of a floating design where practicable rather than a cut design, in order to minimise the disturbance to peat. The track design would have due regard to key principles set out in the joint SNH and Forestry Commission Scotland (FCS) guide to floating roads on peat (SNH *et al.*, 2010). Measures already taken into account during design include track micro-siting to avoid deep peat and, where required, features would be incorporated into the track, such as hydrological culverts to minimise the potential effects on the hydrological characteristics of blanket bog and wet heath habitat. Further details of hydrological mitigation to reduce the significance of potential adverse effects on the hydrology are described in Chapter 10: Hydrology and Hydrogeology.

8.8.2 The layout of the Proposed Development has also been designed with a buffer of 50m around watercourses and waterbodies, where possible, excluding watercourse crossings, in order to minimise construction risks on the aquatic environment.

Mitigation During Construction

8.8.3 In the absence of mitigation, no significant effects under the EIA Regulations are predicted on the ecological features discussed in this chapter except for the Monadhliath SAC and SSSI due to the temporary and short-term displacement of red deer leading to potential damage to the blanket bog qualifying feature, and the disturbance of two potential otter holts within 200m of a proposed borrow pit. Specific mitigation for these ecological features is therefore provided below. No specific mitigation is required for the other ecological features, however, the Applicant proposes to implement a suite of standard good practice working measures that would provide additional protection. These are detailed below and set out in Technical Appendix 3.1: Draft Construction Environmental Management Plan (CEMP).

<u>Deer Management Plan</u>

8.8.4 Technical Appendix 8.5: Deer Management Plan details the measures that would be undertaken during construction to ensure deer numbers are kept at a low level to avoid damage to the blanket bog qualifying habitat in the Monadhliath SAC and SSSI. This management plan has been created in conjunction with the existing Stronelairg Wind Farm Deer Management Plan and the SDMP for the MDMG, both provided for reference as Technical Appendix 8.7 and Technical Appendix 8.8, respectively. The Deer Management Plan for the Proposed Development takes these plans into account to ensure that the objectives are complimentary. These plans should be considered in conjunction to enable a comprehensive and cohesive plan for the Proposed Development and the wider area.

8.8.5 Mitigation measures to avoid significant effects from red deer displacement into the Monadhliath SAC and SSSI include restricting speed limits and construction traffic to the construction site boundary and an annual deer cull plan. Vegetation monitoring would be completed in the Monadhliath SAC and SSSI to verify the effectiveness of the mitigation, as detailed in Technical Appendix 8.5: Deer Management Plan.

<u>Confirmation of Otter Holt Breeding Status</u>

8.8.6 If blasting is not required in the proposed borrow pit location within 115m and 166m of two potential otter holts, no further mitigation is required. However, if blasting would occur, the breeding status of the two potential otter holts would be confirmed by a suitably qualified and experienced Ecological Clerk of Works (ECoW) under an SNH

licence. If the potential holts are not used for breeding, no further mitigation is required. If the potential holts are used for breeding, disturbance of the holts by blasting activities would need to occur under SNH licence and be monitored by the ECoW.

Good Practice Measures During Construction

8.8.7 Standard mitigation measures would be implemented during the construction work, including compliance with the requirements of the CEMP, as detailed in Technical Appendix 3.1: Draft Construction Environmental Management Plan. Species Protection Plans (SPPs) would form part of the CEMP and would address the protected species known to be present in the study area and would provide details on the actions required if other species not recorded during surveys are encountered during construction of the Proposed Development.

Construction Environmental Management Plan

8.8.8 A suite of good practice measures would be set out in a CEMP (see Technical Appendix 3.1: Draft Construction Environmental Management Plan). The Final CEMP would be prepared following determination of the application and would include an outline of the proposed approach to construction methods and environmental protection during all aspects of the construction work, including details of ecological constraints and standard pollution prevention guidelines to ensure no water or air borne pollutants would reach ecological features, such as Glendoe reservoir or the River Tarff. The Final CEMP would also include the procedures for surface water management during construction.

8.8.9 At all watercourse crossing locations, appropriate pollution response spill kits and silt mitigation measures would be installed as described within the CEMP. As a minimum, these would follow SEPA Guidelines for Water Pollution Prevention from Civil Engineering Contracts (SEPA, 2006a) and Special Requirements (SEPA, 2006b). Construction requirements for watercourse crossings are detailed in Technical Appendix 10.3: Watercourse Crossings.

8.8.10 Any excavations that remain uncovered overnight, where there would be the potential for mammals to become trapped, would have a slope at one end or mammal ramps deployed. This would prevent otters, water vole and other species from becoming trapped. These measures would be included in the SPPs within the CEMP. Additionally, all pipes would be capped, and chemicals stored securely.

8.8.11 A suitably qualified and experienced ECoW would be employed to input into the CEMP and oversee the implementation of surface water management and ecological mitigation measures during construction.

Pre-Construction Protected Species Survey

8.8.12 Prior to work commencing, a repeat protected species survey following best practice guidance, similar to the one undertaken during this assessment, would be undertaken within eight months prior to the start of construction, particularly for otter and water vole, which are known to be present, and pine marten and wildcat, which may be present. This would identify any protected species using the habitats of the Proposed Development that were not present during previous surveys. This would also involve a survey of suitable habitat where amphibians or reptiles may be found. A suitably qualified ecologist would be appointed to undertake this survey. If the work is undertaken outwith the active months for amphibians and reptiles then the ecologist would search construction areas for suitable hibernation sites for relocation. Any

amphibians or reptiles discovered during construction would be moved by the ECoW to suitable areas outwith the construction area. SPPs would be included in the CEMP. The SPPs would be followed during construction of the Proposed Development.

Micro-siting

8.8.13 Micro-siting of infrastructure and/or the configuration of the construction working areas within the Proposed Development would seek to avoid localised ecological sensitivities wherever possible. This would include, but would not be limited to:

- Maximising the distance of the watercourse crossing at Allt Mor to ensure it is a minimum of 5m from the water vole burrow;
- Maximising the distance of infrastructure and the associated construction working areas from watercourses, ensuring a minimum separation distance of 50m from a watercourse; and
- Minimising the extent of construction work within wetland, such as M15 wet heath, and blanket bog habitat.

Maintaining Hydrological Connectivity

8.8.14 Suitable drainage and surface water measures would be used to maintain hydrological connectivity in peatland and wetland habitats, particularly blanket bog and M15 wet heath. This would include measures such as diverting drainage around working areas and maintaining hydraulic connectivity in track design by using small diameter pipes in the sub-base. Further details are provided in Chapter 10: Hydrology and Hydrogeology.

8.8.15 Greenfield run-off (i.e. non-silty surface water flow that has not yet passed over any disturbed construction areas) would be kept separate from potentially contaminated water from construction areas, where possible. Where appropriate, interceptor ditches and other drainage diversion measures would be installed immediately in advance of any excavation works in order to collect and divert greenfield run-off around construction disturbed areas. All surface water within disturbed areas would be managed in accordance with sustainable drainage system techniques, using a multi-tiered approach to provide both flow attenuation and treatment through infiltration, where possible, and physical filtration prior to discharge.

8.8.16 In accordance with industry guidance (SNH *et al.*, 2019), ditches would follow the natural flow of the ground with a generally constant depth to ditch invert. They would have shallow longitudinal gradients, where possible. Regular check-dams would be used where necessary to control the rate of run-off. The ditches would be designed to intercept any stormwater run-off and to allow clean water flows to be transferred independently through the works without mixing with construction drainage. The regular interception and diversion of clean run-off around infrastructure would prevent significant disruption to shallow groundwater flow, flush areas, wet heath and blanket bog. This would also reduce the flow of water onto any exposed areas of rock and soil, thereby reducing the potential volume of silt-laden run-off requiring treatment.

8.8.17 Greenfield run-off would be discharged into an area of vegetation for dispersion or infiltration, mimicking natural flows, so as not to alter downstream hydrology or soil moisture characteristics.

Habitat Reinstatement

8.8.18 Areas of temporary wind farm infrastructure, such as the concrete batching plants and borrow pits, would be reinstated as soon as possible to allow the recolonisation of natural habitats. Further details on the proposed approach to habitat reinstatement is set out in Technical Appendix 3.1: Draft Construction Environmental Management Plan.

Mitigation During Operation

8.8.19 In the absence of mitigation, no significant operational effects under the EIA Regulations are predicted on the ecological features discussed in this Chapter. As a result, no specific mitigation is required, however, the Applicant proposes to implement a suite of standard good practice working measures that would provide additional protection. These are detailed below.

Good Practice Measures During Operation

8.8.20 In accordance with the Applicant's accredited ISO 14001 Environmental Management System (EMS), an operational site Environmental Management Plan (EMP) would be prepared and would serve as the means by which the Applicant shall ensure that Cloiche Wind Farm operates in compliance with all applicable environmental legislation, planning conditions and other regulatory commitments.

Standard Watercourse and Aquatic Habitat Pollution Prevention Measures

8.8.21 The risk of pollution from surface run-off to watercourses and aquatic habitats would be prevented by ensuring that run-off control measures, such as interceptor drains and silt traps to assist in maintaining water quality, are in place. Additionally, interceptor drains would be used to control the flow of any run-off from operational activities.

8.8.22 Where possible, appropriate pollution response spill kits and silt mitigation measures would be installed at or close to watercourse crossing locations.

Habitat Restoration

8.8.23 Active restoration of the peatland habitats in the study area would be carried out in line with Technical Appendix 8.6: Outline Habitat Management Plan. Active restoration is defined here as the process of actively encouraging the regeneration of degraded peatland habitats. A minimum of 13.92ha of peatland would be restored in areas comprised of actively eroding peat with only limited vegetation cover, such as hags and gullies, which are extensive in the study area. This would mitigate for the permanent loss of blanket bog as a result of the Proposed Development.

Mitigation During Decommissioning

8.8.24 In the absence of mitigation, no significant decommissioning effects under the EIA Regulations are predicted on the ecological features discussed in this Chapter. As a result, no specific mitigation is required, however, the Applicant proposes to implement a suite of standard good practice working measures that would provide additional protection. It is anticipated that these measures would be similar to those detailed in Technical Appendix 3.1: Draft Construction Environmental Management Plan; however, the proposed measures would be refined to account for changes in good practice, amendments to existing legislation, future enactment of pertinent legislative instruments (e.g. regulation in relation to waste), policy direction and recorded, site-specific

environmental data gathered during the wind farm operational phase. Decommissioning proposals would be agreed with the planning authority prior to decommissioning works commencing.

Habitat Reinstatement: Decommissioned Areas

8.8.25 Areas of wind farm infrastructure, such as turbines and access tracks, would be removed as part of the decommissioning of the Proposed Development and reinstated as soon as possible to allow the recolonisation of natural habitats. Decommissioning proposals would be agreed with the planning authority prior to decommissioning works commencing and would consider site-specific habitat and species data gathered during the wind farm operational phase and pertinent legislation and guidance available at the time of decommissioning.

8.9 Residual Effects

Construction

Designated Nature Conservation Sites

8.9.1 Implementation of the Deer Management Plan would avoid likely significant adverse effects from red deer displacement on the Monadhliath SAC and SSSI, with no residual effects predicted. Red deer are likely to return to areas within the operational Proposed Development from which they were displaced during construction.

Habitats

8.9.2 Implementation of the proposed CEMP would avoid likely adverse effects from pollution events on habitats and standing and running water, with no significant residual effects predicted.

8.9.3 Following completion of construction of the Proposed Development (including reinstatement work), residual adverse effects are anticipated for the short- to medium-term (approximately five to ten years), until habitats have re-established. Permanent habitat loss would occur in blanket bog (13.92ha), wet modified bog (57.62ha), dry modified bog (0.33ha), wet heath (7.18ha), wet heath/acid grassland mosaic (4.93ha) and dry heath (1.04ha) due to the excavation of turbine bases, other infrastructure and access tracks. This effect is considered to be of low magnitude due to the small footprint involved. As a result, no significant residual effects are predicted.

8.9.4 A minimum of 13.92ha of degraded peatland would be restored towards good quality active blanket bog following the completion of construction and in the medium- to long-term would provide a local beneficial effect, particularly as the majority of peatland is currently hagged and/or poor quality wet modified bog. The aim is that by restoring degraded peatland, it would become actively peat-forming blanket bog, which is able to store increased levels of water and carbon dioxide, helping with flood prevention and climate change, respectively. As a result, no significant residual effects are predicted.

8.9.5 Overall, with the completion of the mitigation and good practice measures detailed in this Chapter, whereby the most ecologically valuable and sensitive habitats have been avoided and measures to reduce impacts on all other habitats of higher value and sensitivity have been employed, the effects on habitats are considered to be **not significant**.

Protected and Notable Species

8.9.6 Overall, with the completion of the mitigation and good practice measures detailed in this Chapter, such as a pre-construction protected species survey and the implementation of pollution prevention measures, the residual effects on protected species are considered to be **not significant**.

Operation

Habitats

8.9.7 Good practice pollution prevention measures would avoid likely adverse effects from pollution events in terrestrial and aquatic habitats. As a result, the residual effects on habitats are considered to be **not significant**.

Protected and Notable Species

8.9.8 Good practice pollution prevention measures would avoid likely adverse effects from pollution events on water vole, otter and fish species. As a result, the residual effects on these species are considered to be **not significant**.

8.9.9 No operational effects are considered to occur for mountain hare, amphibians, reptiles and red deer, therefore no residual effects are predicted for these species and species groups.

Decommissioning

8.9.10 There would be no significant decommissioning effects pre-mitigation and, consequently, no residual decommissioning effects would occur.

8.10 Cumulative Effects

8.10.1 This section considers the potential for cumulative effects on ecological features from those proposed, applied, under construction and consented schemes closest to the study area by first describing the known conditions on each of those sites and then summarising the cumulative effect with the Proposed Development. Table 8.10 shows the cumulative developments that could result in cumulative effects on ecological features in combination with the Proposed Development. These cumulative developments occur within 10km and are in the same zone of influence as the Proposed Development.

Table 8.10: Developments Considered in Cumulative Assessment

Operational/Under Construction	Consented	Application/Appeal
Stronelairg Wind Farm	Dell Wind Farm	Glenshero Wind Farm
Corriegarth Wind Farm		

8.10.2 Environmental Statements for nearby developments were consulted and relevant details are presented below.

Operational/Under Construction Wind Farms

Stronelairg

8.10.3 Stronelairg Wind Farm is operational with 66 turbines and is located between the eastern and western clusters of the Proposed Development, overlapping the study area. Stronelairg Wind Farm contains similar upland peatland habitats to the Proposed Development, including wet modified bog, blanket bog and heath. Water vole colonies occurred in narrow riparian grassland along several watercourses and there were few signs of otter, with no holts or resting places, although holts (including a breeding holt) were identified during construction.

8.10.4 The potential effects considered were habitat loss, primarily of wet modified bog and blanket bog, pollution of habitats from run-off/spillages, and severance and disturbance of water vole and otter. These potential effects are not considered to have a significant effect pre-mitigation, except for pollution events on Arctic charr. Following mitigation, no significant or cumulative effects were considered to occur with other committed developments.

8.10.5 It is likely that the loss of blanket bog habitat in combination with the losses from the Proposed Development would amount to a combined low percentage of blanket bog habitat loss.

Corriegarth

8.10.6 Corriegarth Wind Farm is operational with 23 turbines and is located approximately 9km to the north of the Proposed Development. Corriegarth contains similar upland peatland habitats to the Proposed Development, including wet modified bog, blanket bog and heath. Water vole were also recorded.

8.10.7 The potential effects considered were habitat loss, primarily of wet modified bog and blanket bog, resulting in a loss of approximately 24ha of blanket bog and 2ha of wet heath. This loss was compensated by the restoration of approximately 57ha of degraded blanket bog as part of the associated Corriegarth HMP.

8.10.8 It is likely that the loss of blanket bog habitat in combination with the losses from the Proposed Development would amount to a combined low percentage of blanket bog habitat loss.

Consented Wind Farms

Dell

8.10.9 Fourteen turbines are proposed for Dell Wind Farm, which is located adjacent to the north-eastern boundary of the western cluster of the Proposed Development. The planning application was initially refused in October 2017 then consented after appeal in August 2019.

8.10.10 Dell contains similar upland peatland habitats to the Proposed Development, including blanket bog and wet heath. The habitats were assessed as being in sub-optimal condition due to extensive areas of erosion, although active bog areas were present. Water vole and otter were also recorded.

8.10.11 The potential effects considered were habitat loss, primarily of blanket bog. This loss would be compensated by the restoration of 10.5ha of blanket bog within the Dell Estate

and 17.74ha of blanket bog within the site itself, as well as the planting of 50 sessile oak *Quercus petraea*, detailed in an OHMP. Areas of deeper peat and better-quality habitat would be avoided.

8.10.12 It is likely that the loss of blanket bog habitat in combination with the losses from the Proposed Development would amount to a combined low percentage of blanket bog habitat loss.

Wind Farms in Application/Under Appeal

Glenshero

8.10.13 Up to 39 turbines are proposed for Glenshero Wind Farm, which is located adjacent to the southern boundary of the Proposed Development. An application for consent was submitted in October 2018 and is currently awaiting determination.

8.10.14 Glenshero contains similar upland peatland habitats to the Proposed Development and is dominated by wet heath and blanket bog. The study area was assessed as containing extensive areas of hagged, eroding and degraded blanket bog and wet heath. Water vole, otter, common lizard and brown trout were also recorded.

8.10.15 The potential effects considered were red deer displacement into Monadhliath SAC and SSSI, and habitat loss, with a direct and indirect loss of 48.98ha of blanket bog and 35.42ha of wet heath. The project OHMP would seek to improve blanket bog and wet heath within the Glenshero Estate at a replacement and loss ratio of 4:1. A deer management plan would also be produced to control deer numbers and reduce trampling in the Monadhliath SAC and SSSI. Glenshero Estate has agreed to increase the annual hind cull as part of the MDMG strategic objective towards reducing hind densities across the Monadhliath.

8.10.16 It is likely that the loss of 48.98ha of blanket bog habitat in combination with the direct and indirect loss of 14.04ha from the Proposed Development would amount to a combined low percentage of blanket bog habitat loss. In the absence of mitigation, the displacement of deer into the Monadhliath SAC and SSSI during the construction period could also amount to a combined adverse effect on the integrity of the blanket bog, particularly if the developments are constructed at a similar time.

Summary of Cumulative Effects

8.10.17 The main cumulative effects are considered to be a small loss of peatland habitats, some of which are blanket bog, and a potential increase in red deer displacement into the Monadhliath SAC and SSSI, particularly if the Proposed Development is constructed at a similar time to Glenshero Wind Farm. However, a minimum of 13.92ha is proposed for peatland restoration and this could result in an overall beneficial cumulative effect on habitats. Deer management plans for both the Proposed Development and Glenshero Wind Farm would address the management of deer in conjunction with the existing Stronelairg Deer Management Plan and SDMP for the MDMG to ensure deer numbers are kept low enough to avoid a significant adverse effect on the Monadhliath SAC and SSSI. As a result, the effect of the cumulative loss of peatland and the potential cumulative increase in red deer displacement into the Monadhliath SAC and SSSI are considered to be **not significant**.

8.10.18 Taking into account the low cumulative effects of the surrounding cumulative developments with the Proposed Development, no significant cumulative effects are

considered to occur. In the context of the wider area, the Monadhliath mountain range is considered to contain blanket bog of varying quality similar to the cumulative developments considered above. The exact area of the Monadhliath mountain range is not known but is believed to represent approximately 150,000ha dominated by blanket bog (Strath Caulaidh Ltd, (2015). In this context, a cumulative loss of approximately 130ha of blanket bog is considered to be **not significant**.

8.11 Conclusion

8.11.1 This Chapter has considered potential impacts and their associated effects on ecological features, such as designated nature conservation sites, habitats and protected species in line with best practice guidance from CIEEM.

8.11.2 The study area was surveyed in 2019 to provide baseline information on habitats and faunal species. Surveys included an extended Phase 1 habitat survey and NVC surveys. The dominant habitats were wet modified bog, blanket bog and wet heath. Potential GWDTE were recorded but these are unlikely to be groundwater dependent in the setting of the study area and they are not a significant constraint. Protected species surveys identified the presence of water vole, otter, mountain hare, brown trout, European eel, common frog, an unidentified newt, common lizard and red deer. The newt and fish species were present at low densities, with the rest of the species common and widespread throughout the study area.

8.11.3 Without application of mitigation, significant effects in terms of the EIA regulations are predicted on the Monadhliath SAC and SSSI, and otter. Adverse effects not significant in EIA terms are also considered to occur on habitats, water vole and otter from pollution events. Following the application of mitigation, such as a deer management plan and CEMP, and standard working methods and good practice measures, such as pollution prevention measures, no significant residual effects are predicted.

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