Appendix 11H
Scoping of the Assessment – Summary

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This appendix provides the rationale for the scope of the assessment and comprises two tables. **Table 11H.1** describes and justifies the level of importance assigned to the ecological features identified during the data gathering exercise carried out to inform this assessment. **Table 11H.2** determines and justifies whether those ecological features require further assessment as they have either sufficient legal protection for a breach in legislation to occur or are of sufficient importance that a significant effect may occur as a result of the Proposed Development.

Within **Table 11H.1**, consideration is given to both the importance of ecological features based on legislation and policy (refer to paragraphs 11.7.1 to 11.7.3) and importance with regard to the Proposed Development (refer to paragraphs 11.7.2 to 11.7.5 and **Table 11.7**). The justification provided for the decision to scope in or out each ecological feature is based on information on its status both with regard to the Proposed Development, and the local, county, regional, national or international context, where available.

Table 11H.1 Importance of Ecological Features

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Glen Afton Local Nature Conservation Site (LNCS)	County	Local	Glen Afton LNCS is designated for its semi-natural valley woodland, scrub and semi-improved grassland comprising predominately of alder and birch with good shrub and ground layers. Glen Afton LNCS is adjacent to the proposed Development Site and is located downstream of the site, therefore there is potential for hydrological effects pathways along Afton Water, which could lead to reduction in habitat quality of the LNCS features	N
Connel Burn/ Benty Cowan (LNCS)	County	Local	Connel Burn/ Benty Cowan LNCS supports a variety of upland habitats along the upper Connel Burn including acidic and marshy grassland, blanket bog, species-rich ledges and numerous flushes. Connel Burn/ Benty Cowan LNCS is located within the Proposed Development footprint and will be subject to 0.89ha of direct and permanent habitat loss as a result of the proposed development. In addition there is hydrological connectivity with the development site and the LNCS and so there is potential for hydrological effects pathways, which could lead to reduction in habitat quality.	N

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Afton Uplands LNCS	County	Local	Afton Uplands LNCS is an extensive upland site which encompasses a range of upland mire, montane heath and grassland habitats. Alpine clubmoss and juniper are present which stiff sedge is frequent over the summit of Craigbraneoch and Blackcraig. The LNCS is located 200m from the site entrance of the proposed development.	N
Ancient Woodland: Bolt Wood Carcow Wood Un-named wood	County	Local	Three areas of ancient woodland are located within 2km of the Proposed Development site. Carcow wood is the closest area of ancient woodland located 200m north-west of the proposed access track.	N
Broadleaved woodland plantation	Local	Negligible	Broadleaved plantation woodland comprises a small area within the study area. This habitat is botanically unremarkable and has been assessed as negligible importance within the proposed Development Site. Given that no direct loss of broadleaved trees is expected as a result of the proposed development and any indirect effects are not anticipated to result in any loss of trees, broadleaved woodland plantation has been scoped out of the assessment.	Y
Coniferous woodland plantation	Negligible	Negligible	Planted coniferous woodland is of limited conservation interest in ecological terms. The majority of the site is comprised of forestry plantation and permanent or temporary habitat loss is likely as a result of the Proposed Development and compensatory planting may be necessary on a like for like basis in accordance with the UK Forestry Standard (UKFS) and The Scottish Government's Policy on Control of Woodland Removal[1]. Due to the low ecological value of this habitat this feature has been scoped out of further assessment.	Y

[1] https://forestry.gov.scot/support-regulations/control-of-woodland-removal

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Scattered scrub	Local	Negligible	A species-poor habitat recorded outside the Development Site, which would not be subject to habitat loss. This feature has been scoped out of further assessment.	Y
Scattered broadleaved trees	Local	Negligible	Scattered broadleaved trees comprise a small area within the study area. This habitat is botanically unremarkable and has been assessed as negligible importance within the proposed Development Site. Given that no direct loss of broadleaved trees is expected as a result of the proposed development and any indirect effects are not anticipated to result in any loss of trees, scattered broadleaved trees have been scoped out of the assessment.	Y
Improved grassland	Local	Negligible	A species poor habitat recorded at the lower reaches of Pencloe farm adjacent to the road which is assessed as negligible importance in terms of the proposed development This feature has been scoped out of further assessment.	Y
Blanket Bog (M19, M20, M20i, M20ii)	European	Local	M20 dry modified bog is an important community within the study area occupying the second largest extent of area, following coniferous woodland plantation. The modified dry blanket bog occurs as large stands within the forestry rides and also as a mosaic with other communities and as a significant proportion of Strandlud Hill. These are a restricted and declining habitat in the UK and Europe. Blanket bog is an SBL Priority habitat and includes habitats/ vegetation communities listed on Annex I to the EC Habitats Directive. Only a small area of M20i blanket bog located in the middle of the study area was assessed as active, the majority of M20ii is not active. One small stand of M19 wet modified blanket bog was recorded east of the study area and will not be directly or indirectly impacted by the proposed development. The Development Site is assessed as being of Local importance for blanket bog.	N

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Semi-improved acid grassland (U4, U4x, U5, U5a, U5b, U6)	National	Local	Semi-improved acid grassland is of limited conservation interest, as it has a relatively low species diversity within the Study Area. It occurs in a variety of forms and can be found in small areas as a mosaic with modified bog communities and also as a larger area on Strandlud Hill. However, mat grass and marsh bedstraw acid grassland is an SBL Priority habitat and land take and land use during construction may lead to loss/disturbance of this habitat. This habitat is therefore considered for further assessment in this chapter.	N
Marshy Grassland (M23. M23a, M23b) and Mire (M25, M25b)	National	Local	Certain types of marshy grassland are SBL Priority habitat (purple moor grass and rush pasture). M23 is a rush pasture common throughout Scotland on circum-neutral damp ground, with a variable species diversity and botanical value, which can look like acid flush but is more neutral and lacks the Sphagnum carpet. M23 can be specie- rich but all occurrences in the survey area consist of a few very common species. M25 is common throughout large parts of Scotland. It is dominated by purple moor grass with a few other common and widespread species present. Given all occurrences in the survey areas are very poor in species and generally impoverished the Development Site is assessed as being of Local importance for marshy grassland. Landtake and land use during construction may lead to loss/disturbance of this habitat and as purple moor grass and rush pasture is an SBL Priority Habitat it is included for further assessment in this chapter.	N
Tall herbs (U16)	Local	Negligible	Small stands of U16 tall-herb (*Luzula sylvatica –Vaccinium myrtillus* tall-herb), too small to map, occur occasionally within the study area between forestry tracks and coniferous woodland plantation. The tall-herb community is dominated by wood-rush, with abundant tormentil, heath rush, heath bedstraw, wavy-hair grass and *Hylocomium splendens* and is botanically unremarkable. It is therefore scoped out of further assessment within this chapter as it is considered to be negligible importance in terms of the proposed development. However U16 is assessed is highly GWDTE, which may be sensitive to damage during construction works within a 250m ZoI. Given it is botanically unremarkable it is scoped out of further assessment in this chapter, however, it is assessed further for potential effects of the proposed development as a highly GWDTE within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology.	Y

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Dry Heath (H12)	National	Local	Dry heath is an SBL Priority habitat and includes habitats / vegetation communities listed on Annex 1 to the EC Habitats Directive. Dry heath is always dominated by heather and occurs on former hardstanding, as a small narrow stand in the north east adjacent to a forestry track and as small mosaic within self-sown scattered coniferous trees. The Development Site has been assessed as being of Local importance for dry heath. As this habitat type was not recorded within the proposed working areas and only small areas of this habitat are present within the study area it has been scoped out of further assessment.	Y
Wet Heath (M15)	National	Local	Wet heath contains vegetation communities listed on Annex 1 of the Habitats Directive and is an SBL Priority habitat.. The Development Site has been assessed as being of Local importance for wet heath. As this habitat type was not recorded within the proposed working areas and only small areas of this habitat are present within the study area it has been scoped out of further assessment. However, M15 is assessed as being a moderately GWDTE and therefore may be sensitive to damage during construction works within a 250m ZoI. It is considered further within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology.	Y
Acid flush (M6, M6a, M6b, M6d)	National	Local	Acid flush is an SBL Priority habitat (Upland Flushes, Fens and Swamps). Acid flush communities are widespread within the study area occurring as narrow linear stands within drainage ditches and in small to large mosaic with other communities. These habitats are common throughout Scotland, although usually of low diversity and composed of a few very common species. The Development Site is assessed as being of Local importance for acid flush habitats. There will be direct habitat loss as a result of the proposed development and it is included in further assessment.	N

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Open Water (M2)	National	Local	Rivers and lochs that meet certain criteria are Scottish Biodiversity List (SBL) habitats and those within the Development Site also support SBL species and otter which is a European Protected Species (EPS). The Development Site is assessed as being of Local importance for watercourses. The Development Site and the catchment support EPS species and species protected under the Habitats Directive, e.g. Atlantic Salmon and is connected to LNCS and so watercourses are considered are included in further assessment.	N
Otter	European	Local	Otters are legally protected to the highest level by the Conservation (Natural Habitats, &c) Regulations 1994 (as amended) i.e. they are European Protected Species (EPS) which makes it an offence to deliberately or recklessly kill, injure or disturb (an) otter(s) and it is an offence of strict liability to damage or destroy an otter resting place. This species is present within the Development Site although resources are generally limited to foraging and commuting which are important at the local scale. The potential effects on otter as a result of the proposed development are considered further due to its EPS status.	N
Water vole	National	Local	Water vole is afforded partial protection in Scotland under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to disturb or damage water vole habitat rather than an offence to recklessly kill, injure or take individual water voles. Water vole is also listed in the SBL as 'conservation action needed'. It is also listed on the LBAP. Water vole were not recorded within the Study Area and no records were returned from the desk study. Water vole have therefore been scoped out of further assessment from this chapter.	Y

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Bats	European	Local	Bats from three genera are present within the Development Site: Pipistrellus, (common and soprano pipistrelle), Myotis (Natterer's, whiskered or Daubenton's). and Nyctalus (Leisler's). All species of bats and their roosts are legally protected at European level through the Conservation (Natural Habitats, &c) Regulations 1994 (as amended). The SBL lists Daubenton's bat, whiskered bat, Natterer's bat, noctule. Nathusius' pipistrelle, common pipistrelle and soprano pipistrelle and brown long-eared bat in respect of their importance for biodiversity conservation and international obligations. The common pipistrelle is also listed on the Ayrshire LBAP as a Priority Species. Population estimates/trends for species considered to be present within the Development Site (based on Battersby et al, 2005 and BCT 2019 population trends2) are: • Common pipistrelle: Native, common across the UK. UK 3,040,000 (positive trend) • Soprano pipistrelle: Native, common across the UK. UK 4,670,000 (positive trend) • Daubenton's bat: Native, fairly common in much of the UK. UK 1,030,000 (no significant trend data) Scotland 235,000 (no significant trend data) • Natterer's bat: Native, fairly common in much of the UK. UK 414,000 (positive trend); Scotland 41,000 (unreliable data) • Whiskered bat: Native, locally distributed. UK 64,000; Scotland 1,500 (no significant trend data) • Leisler's: Native, scarce across England and Wales but uncommon in Scotland. UK 10,000; Scotland 250 (no significant trend data) A confirmed roost was recorded at Monquhill Farmhouse located approximately 700m east of the nearest turbine. No other suitable roost sites were recorded within 2km of the turbines. The roost supported very low numbers of at least three species (common pipistrelle, soprano pipistrelle and Myotis species (thought to be Daubenton's bat). The roost was assessed as an occasional roost or day roost, and does not represent a hibernation or maternity roost.	N

[2] https://cdn.bats.org.uk/pdf/Our%20Work/National-Bat-Monitoring-Programme-Annual-Report-2019.pdf?mtime=20200514130739&focal=none

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
			The Development Site offers limited suitable foraging habitat for bats and very low bat activity was recorded within the main development site, which is remote from the main river valleys, which experienced a much higher level of bat activity. The Development site is only thought to be used occasionally by a small number of bats during suitable weather conditions. Given the very low numbers of bats recorded on site and the poor quality of habitat that is available to bats, being mostly comprised of coniferous plantation woodland, the Development Site is assessed as local value for bats. The potential effects on bats as a result of the proposed development are considered further due to their EPS status and the presence of a roost within the Development Site.	
Badger	Local	Negligible	Legally protected species under the Protection of Badgers Act 1992 (as amended by the Nature Conservation (Scotland) Act 2004). The Development Site provides limited foraging and sett-building habitat. Although no setts were recorded during surveys a single badger print was recorded during surveys undertake in 2016, there is therefore potential for this species to colonise areas close to proposed infrastructure and as such, pre-construction surveys for this species will be undertaken. However, as no badger setts were recorded within the survey area, badger are considered to be of negligible importance in relation to the proposed development and have been scoped out of further assessment within this chapter.	Y
Great crested newt	European	Negligible	Based on the fact that the surveys recorded no great crested newt, despite targeted surveys being undertaken, no records within the desk study and the comparatively low suitability of standing water in the development site for breeding great crested newts and the general lack of records of great crested newt in the surrounding area, this species has been scoped out of further assessment.	Y

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Pine marten	National	Local	Potential pine marten scat was recorded on site during the 2021 surveys however, the habitat within the development site is regarded as poor quality for pine marten due to its relatively young age and closed canopy. Pine marten are known to have expanded their range into south west Scotland and have been recorded at adjacent sites. Although it is considered unlikely for pine marten to establish den sites within the Development Site due to the poor quality forest habitat it is considered possible for pine marten to commute through the Development Site during construction on route to more productive foraging areas. Should this occur there is potential for injury of pine marten. Pre-construction surveys for this species will be undertaken, however, given the sub-optimal habitat within the Study Area this species has been scoped out of further assessment. Pre-construction red squirrel surveys will be undertaken prior to any removal of trees.	Y
Red squirrel	National	Local	A single record of red squirrel was made adjacent to the proposed access track during surveys, however, no other evidence of red squirrel was recorded within the survey area. The overall suitability of the conifer planation woodland within the Development Site is considered to be low, offering limited shelter and/food opportunities for red squirrel. Although red squirrel were confirmed to be present within the survey area, the overall suitability of the Site is considered to offer limited value for this species and red squirrel has been scoped out of further assessment. Pre-construction red squirrel surveys will be undertaken prior to any removal of trees.	Y
Atlantic salmon	European	Regional	Atlantic salmon was not recorded within the Development Site and the site was considered to be unsuitable for salmon due to the high altitude of the site and the watercourses being unsuitable due to their small size and interruption of watercourses by a series of natural falls and rock obstructions. This species was however recorded within the Afton Water and the Carcow burn, which are both hydrologically linked to the Development Site. Atlantic salmon is a SBL species and has been subject to population declines on may rivers throughout Scotland. The Proposed Development includes a total of six watercourse crossings. Works on these crossings during the construction and decommissioning phases have the potential to discharge silt and sediment into the watercourse, which could result in detrimental effects upon these fish species.	N

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Sea/brown trout	National	Regional	Sea/brown trout was recorded within the Development Site. Sea/brown trout is a SBL species and sea trout in particular have been subject to population declines on many rivers throughout Scotland. The Proposed Development includes a number of watercourse crossings. Works on these crossings during the construction and decommissioning phases have the potential to disturb instream habitats, create a temporary barrier to fish movement and have associated risks of silt/pollutant discharges to watercourses. The operational development is likely to have associated electromagnetic emissions and limited pollution risk.	N
Lamprey (sea, river and/or brook lamprey)	European	Local	No lamprey species were recorded during the fish survey, however, the catchments into which the watercourse on-site drain potentially support lamprey. All three UK lamprey species are SBL species. Lamprey have been assigned Local importance on a precautionary basis. The Proposed Development includes a number of watercourse crossings. Works on these crossings during the construction and decommissioning phases have the potential to disturb instream habitats, create a temporary barrier to fish movement and have associated risks of silt/pollutant discharges to watercourses. Lamprey have therefore been scoped in on a precautionary basis.	N
Eel	European	Regional	This SBL species was recorded in the Carcow Burn just outside of the Development Site and has been assigned as being of Regional Importance on a precautionary basis, also recognising that it has been subject to steep declines nationally and in Europe. The Proposed Development includes a number of watercourse crossings. Works on these crossings during the construction and decommissioning phases have the potential to disturb instream habitats, create a temporary barrier to fish movement and have associated risks of silt/pollutant discharges to watercourses downstream. Eel has therefore been scoped in on a precautionary basis.	N

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification	Scoped Out of Assessment (Y/N)
Freshwater pearl mussel	National	Local	This SBL species has not been recorded within the Development Site. It is included in the assessment as it could occur within the catchments into which the watercourse on-site drain. It has been assigned up to Local importance on a precautionary basis. Works on watercourse crossings during the construction and decommissioning phases will disturb river habitats/substrates and have associated risks of silt/pollutant discharges to watercourses. The operational development is also likely to have limited pollution risk. The effects on salmonids outlined above could also have adverse effects on freshwater pearl mussels indirectly because salmonids are host vectors of juvenile mussels and have an important role in mussel reproduction/recruitment. Freshwater pearl mussel has therefore been scoped in on a precautionary basis.	N

For those ecological features that remain scoped in following the process as described in **Table 11H.1**, the following are provided in **Table 11H.2**: description of the potential environmental change and associated effect (refer to paragraphs 11.7.6 – 11.7.9); a description of the zone of influence for each ecological feature (refer to paragraphs 11.7.6 – 11.7.9 and **Table 11.8**); justification of the decision to scope in or out each ecological feature based on the likely scale of the potential effect, general working measures (i.e. those covered within the Code of Construction Practice) that negate the effect and relevant information on the features status within the local, county, regional, national or international context where that is available.

Table 11H.2 Scoping of Ecological Features of Local or Above Importance and those Receiving Legal Protection

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
Glen Afton LNCS	Reduction in habitat quality as a result of hydrological connectivity and pollution incidents.	Up to 10km downstream for the Site for hydrological connectivity.	N	Glen Afton Provisional LNCS is adjacent to the proposed Development Site access and is located 4km downstream of the furthest proposed wind turbine, therefore there is potential for hydrological effects pathways along Afton Water which could increase sediment loading and pollutants entering the LNCS which could lead to reduction in habitat quality of the LNCS features. There is also potential for pollution events, including increased dust deposition given the LNCS' close proximity to the proposed access route. As such, this site is included in further assessment within this chapter.
Connel Burn/ Benty Cowan LNCS	Direct habitat loss as a result of the development. Reduction in habitat quality as a result of hydrological connectivity and pollution incidents including dust deposition.	Within the construction/ maintenance/ decommissioning area Up to 10km downstream for hydrological connectivity.	N	Connel Burn/ Benty Cowan LNCS is located within the Development footprint and so there will be direct and permanent habitat loss as a result of the development. No botanically sensitive habitats were identified within the Study Area associated with the LNCS and habitats were assessed as generally being modified as a result of coniferous plantation woodland and grazing pressure, however given its status as a LNCS it is included in further assessment within this chapter. In addition there is hydrological connectivity with the development site and the LNCS and so there is potential for hydrological effects pathways, which could lead to reduction in habitat quality as a result of increased sediment loading and pollutants.
Afton Uplands LNCS	Reduction in habitat quality as a result of hydrological connectivity and pollution incidents, including dust deposition.	Up to 10km downstream for hydrological connectivity.	Y	Afton Uplands LNCS forms the upland heath on higher topography to the east of the Afton Glen and to the east of the Development Site. There are considered to be no hydrological effect pathways between the proposed development and the LNCS as it is upstream of the proposed development and given the LNCS location at its closest point is approximately 3km east to site infrastructure (excluding the existing access track) effects from dust deposition is considered unlikely and so the site has been scoped out of further assessment.

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
Ancient Woodland Bolt Wood Carcow Wood Un-named wood	Reduction in habitat quality as a result of hydrological connectivity, pollution incidents and dust deposition.	Within the construction/maintenance/decommissioning area, up to 10km downstream of the Site for hydrological connectivity and 50m for pollution and dust deposition. .	Y	All ancient woodlands are located outside of the Development Site, with the closest being the Carcow Wood, located 200m to the north-west of the access trackway at Pencloe. The woodlands are located upstream of the Development site and so there are considered to be no hydrological effect pathways and it is considered to be outside the ZoI for airborne particulates. Ancient woodland is considered to be outside the zone of influence and this receptor has been scoped out of further assessment.
Blanket Bog (M19, M20, M20i, M20ii)	Permanent loss and temporary damage to terrestrial habitats including through pollution and dust deposition.	Direct loss and temporary damage within the construction/ maintenance decommissioning area and up to 50m outside of the Development Site for pollution and dust deposition.	N	Blanket bog will be subject to both direct and indirect effects as a result of the proposed development. Direct habitat loss will result from construction activities and there is potential for indirect effects as a result from changes in hydrology and through pollution and dust deposition which may affect habitats up to 50m around construction activities. M19 was recorded within the study area but outside of the proposed development area and will not be effected by the proposed works. Other examples of blanket bog are modified due to forestry, drainage and grazing pressures. Most of the blanket bog was determined to be inactive but a small area of blanket bog in the middle of the study area on Strandlud Hill was determined to be active. Blanket bog is an SBL Priority habitat and includes habitats/ vegetation communities listed on Annex I to the EC Habitats Directive. As it will be subject to both direct and indirect effects as a result of the proposed development it is included for further assessment in this chapter.
	Indirect disturbance and changes to composition of plant communities resulting from hydrological change	50m[3] beyond construction/ maintenance/ decommissioning areas.		

[3] The permeability of peat is generally low, and the effect of a ditch on groundwater levels is limited at distances exceeding about 50m. See NERC (1992). *Hydrology and Wetland Conservation*. Report to MAFF. Natural Environment Research Council.

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
Semi-improved acid grassland (U2, U4, U4x, U5, U5a, U5b, U5c U6)	Temporary and permanent loss and damage to terrestrial habitats including through pollution and dust deposition.	Within and up to 50m from construction/ maintenance/ decommissioning activities.	N	There will be direct temporary and permanent loss of semi-improved acid grassland as a result of the proposed development with potential indirect effects to species composition as a result of changes in hydrology. There may be indirect effects up to 50m from construction works due to changes in hydrology and through pollution and dust deposition and so potential indirect effects a considered further. U6 acid grassland is a moderately GWDTE which may be sensitive to damage during construction works within a 250m ZoI. The potential effects of the proposed development on this community in terms of GWDTEs are assessed within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology.
	Changes to composition of plant communities resulting from hydrological change	250m beyond construction/maintenance/ decommissioning	Assessed within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology	
Marshy Grassland (M23. M23a, M23b) and Mire M25, M25b)	Temporary and permanent loss and damage to terrestrial habitats	Within and up to 50m from the construction/ maintenance decommissioning area	N	Marshy grassland will be subject to both direct and indirect effects as a result of the proposed development. Direct habitat loss will result from construction activities and there is potential for indirect effects as a result from changes in hydrology and damage due to pollution and dust deposition. . Both marshy grassland and mire also contain GWDTE NVC communities (including M23 rush pasture and M25 mires), which may be sensitive to damage during construction works within a 250m ZoI. The potential effects of the proposed development on this community in terms of GWDTEs are assessed within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology. As purple moor grass and rush pasture is an SBL Priority Habitat it is included for further assessment in this chapter.
	Indirect disturbance and changes to composition of plant communities resulting from hydrological change	250m beyond construction/maintenance/ decommissioning areas	Assessed within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology.	

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
Acid flush (M6, M6a, M6b, M6d)	Permanent loss and damage to terrestrial habitats including through pollution and dust deposition.	Within and up to 50m form the construction/ maintenance/ decommissioning area	N	Acid flush will be subject to both direct and indirect effects as a result of the proposed development. Direct habitat loss will result from construction activities and there is potential for indirect effects as a result from changes in hydrology and through pollution and dust deposition which may affect habitats up to 50m around construction activities. Although no species rich examples of this habitat were recorded it is included for further assessment due to its inclusion as an SBL Priority Habitat (Upland Flushes, Fens and Swamps). This community is assessed as a GWDTE (M6 mires), which may be sensitive to damage during construction works within 250m ZoI it is included in further assessment in Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology.
	Indirect disturbance and changes to composition of plant communities resulting from hydrological change	250m beyond construction/ maintenance/ decommissioning areas	Assessed within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology.	
Open Water (M2)	Disturbance of river habitats and pollution to watercourses and downstream waterbodies during construction, operation and decommissioning. Includes silt/ sediment and pollutant release, damaging fish habitats (inc. spawning habitat), potentially harming fish and associated adverse effects on fish and otter populations.	Within the construction/maintenance/ decommissioning area and up to 10km downstream for the Site through hydrological connectivity.	N	There are numerous watercourses within the proposed development site which are considered an SBL Priority Habitat and also support SBL priority species, including otter and fish. The watercourses within the site are also part of and linked to LNCS. In order to avoid any detrimental effects upon watercourses and the species they support mitigation measures will be essential to avoid any significant effects as a result of the proposed development. As such, watercourses are included for further assessment within this chapter. The Proposed Development includes a number of culvert watercourse crossings. Works on these crossings during the construction and decommissioning phases would disturb in-stream and bank habitats and have associated risks of silt/pollutant discharges to watercourses. The operational development is also likely to have associated pollution risk.

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
Otter	Disturbance/ displacement to local otter population. Direct damage to resting sites and disturbance to individuals using resting sites due to elevated levels of disturbance (such as increased, lighting ad human disturbance) during construction/operation and decommissioning related works.	Up to 200m beyond construction/ maintenance/ decommissioning area (based on SNH protected species advice)	N	Otter is a European protected species (EPS) and an SBL Priority species. The Proposed Development footprint is within the home range of otters and therefore construction activity may give rise to the disturbance to the local otter population and there may be impacts to their prey species – either from the placement of infrastructure or due to noise disturbance. The Proposed Development has the potential to lead to temporary habitat severance and fragmentation of territories during construction or decommissioning phases, particularly during the construction of water crossings and could lead to could lead to an increase in mortality as a result of traffic collision during construction or decommissioning phases.
	Temporary severance of otter habitats and commuting routes	Within the construction/ maintenance/ decommissioning area	N	Given the level of legal protection otter receive, their presence within the proposed development area and the potential for effects on this species up to 200m from the proposed development works, this species requires further assessment within this chapter.
	Direct mortality due to construction related activities	Within the construction/ maintenance/ decommissioning area	N	
	Reduction in habitat quality as a result of hydrological connectivity and pollution incidents and impacts on prey.	Up to 10km downstream for hydrological connectivity.		Inputs of silt and other fine material including peat can cause damage to fish habitats and direct mortality to fish and fish eggs.

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
Bats	Loss, damage or fragmentation of foraging and commuting habitat	Within 10km of the Proposed Development	N	A bat roost was confirmed to be present within the proposed development area. In addition bats were recorded with the development site, although at very low numbers. Given the legal protection bat species are afforded and the risks of effects from disturbance during construction works and also potential for killing or injury of bats during the operational phase as a result of collision with wind turbines it is necessary to consider the potential effects of the proposed development on bats further within this chapter.
	Disturbance to roosting bats due to elevated levels of disturbance (such as increased lighting ad human disturbance) during construction/operation and decommissioning related works.	Up to 50m from construction activities.	N	
	Killing or injury of bats by wind turbines during the operational phase	Within 10km of the Proposed Development	N	
Atlantic salmon	Deterioration in fish populations due to: loss of, or damage to, juvenile salmonid habitat at watercourse crossings; obstruction of spawning migration; harm to fish (direct physical harm/noise); degradation of fish habitats due to pollution/siltation; and harm to fish during operation (electromagnetic emissions).	Up to 10km downstream from the Site for hydrological connectivity.	N	Due to the hydrological effects pathways between the Development Site and confirmed Atlantic salmon habitat along the Afton Water, this species is considered further within this chapter.
Sea/brown trout	Deterioration in fish populations due to: loss of,	Up to 10km downstream for hydrological connectivity.	N	Due to hydrological effects pathways between the proposed development and confirmed sea/brown trout habitat within the

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
	or damage to, juvenile salmonid habitat at watercourse crossings; obstruction of spawning migration; harm to fish (direct physical harm/noise); degradation of fish habitats due to pollution/siltation; and harm to fish during operation (electromagnetic emissions).			Development Site, this species is included in further assessment within this chapter.
Lamprey (sea, river and/or brook lamprey)	Degradation of fish habitats due to pollution/siltation; and harm to fish during operation (electromagnetic emissions).	Up to 10km downstream from the Site for hydrological connectivity.	N	No lamprey species were recorded as part of the aquatic surveys, however, the Development Site is hydrologically connected to potential lamprey habitat and this species is therefore included in further assessment within this chapter.
Eel	Deterioration in fish populations due to: loss of, or damage to, habitat at watercourse crossings; disruption/obstruction of migration; harm to fish (direct physical harm/noise); degradation of fish habitats due to pollution/siltation; and harm to fish during operation (electromagnetic emissions).	Up to 10km downstream from the Site for hydrological connectivity.	N	This SBL species was recorded in the Carcow Burn just outside of the Development Site. Carcow Burn is hydrologically connected to the Development Site and there is therefore the potential, for the proposed development to affect this species as a result of sediment loading, silt runoff and pollution. Mitigation measures will be required to minimise any potential risk to this species as a result of the proposed development.
Freshwater pearl mussel	Degradation of habitats due to pollution/siltation.	Up to 10km downstream from the Site for hydrological connectivity.	N	As there is potential for freshwater pearl mussel to be present within the catchment due to the presence of Atlantic salmon (a host species), this species has been included within the assessment

Ecological Feature	Environmental Change and potential effect	Zone of Influence	Scoped Out (Y/N)	Justification
				as any increase in sediment loading, silt run off or pollutants has the potential to negatively affect this species.