

Technical Appendix 11F: Scoping of the Assessment

1.1 Summary

1.1.1 This appendix provides the rationale for the scope of the assessment and comprises two tables:

- **Table 11G.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 11G.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.

1.1.2 Within **Table 11G.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 11.F.1 Importance of Ecological Features

Ecological Feature	Importance – Legislation & Policy	Importance – Proposed Development	Justification
Afton Uplands pLWS	County	Local	Part of the Afton Uplands pLWS is located within the Proposed Development Site boundary. It is an extensive upland site comprised of upland mire, montane heath and grassland habitats. Possible impacts may arise from habitat loss and changes to local hydrology. It has therefore been scoped in for further assessment.
Blanket bog communities (M17, M18, M19, M25)	International	Local M18 (Regional)	Mire was commonly present in the Site and covered ca. 435ha (ca. 28% of the total survey area). Communities and sub-communities include blanket mire (ombrogenous ¹ mire) and soligenous ² mires (often called flushes). Blanket mire and soligenous mire formed ca. 75% and 25% of the total mire cover, respectively. Wet modified bog formed ca. 7% of the blanket bog present, with the remainder being intact blanket bog. These are a restricted and declining habitats in the UK and Europe. Blanket bog is an SBL Priority habitat, is included in both Dumfries and Galloway and Ayrshire LBAPs and includes habitats/ vegetation communities listed on Annex I to the EC Habitats Directive. Given there will be direct impacts on blanket bog from habitat loss as a result of the Proposed Development, these habitats remain scoped in for further assessment.
Wet modified bog communities (M20)		Local	
Ancient woodland	National	Negligible	There is a single stand of woodland listed on the Ancient Woodland Inventory (AWI), approximately 1.9km south-east of the Site boundary. This woodland is not likely to be impacted by the proposed development due to intervening distance and the lack of impact pathways. Therefore ancient woodland is scoped out from detailed assessment.
Acid Flush communities (M6)	National	Local	M6 had a reasonably high coverage comprising 21% of mire present. All examples of these mire communities were species poor and unremarkable. Included on the Scottish Biodiversity List as ‘watching brief only’, so of low conservation concern. M6 is however, indicative of a potentially high level of ground water dependency and so this community remains scoped in for further assessment.
Acid Flush M4	Local	Negligible	M4 mire community had a low level of abundance with a few scattered occurrences across the Site and is botanically unremarkable. It is therefore scoped out of further assessment.
Wet dwarf shrub heath (M15)	Local	Local	Wet heath contains vegetation communities listed on Annex 1 of the Habitats Directive and is an SBL Priority habitat. The Site has been assessed as being of Negligible 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

¹ Ombrogenous mires are mainly fed by rainwater.

² Soligenous mires are attributed to persistent, surface water flows (i.e. flushing).

			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 Zone of Influence (ZoI). It is considered further within Chapter 13 Geology, Hydrology (including flood risk) and Hydrogeology .
Marshy Grassland (M23)	National	Local	Certain types of marshy grassland are listed within the SBL as being of principal importance for biodiversity conservation (e.g. purple moor grass and rush pasture). M23 is a rush pasture common throughout Scotland on circum-neutral damp ground, with variable species diversity and botanical value. M23 can be rich but occurrences in the Study Area generally consist of a handful of common species., excluding the occurrence of scattered spignel, which is considered to be a nationally scarce plant. On this basis, the Site has been evaluated as being of Local importance for marshy grassland habitats. Rush-pasture vegetation (marsh/marshy grassland) was abundant across much of the Site, covering a total area of ca. 257ha (ca. 17% of the survey area). Rush-pasture was particularly common by the land that borders the Water of Ken, the Lorg Burn and tributaries (in the north-west of the Site), the Altry Burn (in the south of the survey area, and less commonly by the Pullmulloch Burn in the north-east of the area. M23 is therefore scoped in for further assessment.
Semi-improved acid grassland (U2, U4, U5,U6)	National	Negligible	Certain types of unimproved acid grassland are listed within the SBL as being of principle importance for biodiversity conservation (e.g. mat grass – heath bedstraw grassland, and soft rush – sheep fescue grassland). However, the assemblage recorded on site is unremarkable and lacks the diversity of Annex 1 forms of this habitat. Due to its relatively low species diversity and limited conservation value, this habitat has been scoped out of further assessment.
Semi-improved neutral grassland (MG9)	Local	Negligible	Semi-improved grassland is a transitional grassland habitat that has been modified by artificial fertilisers, intensive grazing, herbicides, or drainage., and consequently has a less diverse range of species than unimproved grassland. Due to its relatively low species diversity and limited conservation value, this habitat has been scoped out of further assessment.
Bracken (U20)	Local	Negligible	Bracken was associated with steep hillside and water course edges covering around 3.5% of the Study Area. This habitat type is generally considered to be of low conservation value and has therefore been scoped out of further assessment.
Open Water	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. otter and is connected to pLWS and so watercourses are included for further assessment.
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.

Badger	Local	Local	<p>Legally protected species under the Protection of Badgers Act 1992 (as amended by the Nature Conservation (Scotland) Act 2004).</p> <p>The majority of the Development Site provides limited foraging and sett-building habitat however, active badger setts were recorded within the Survey Area within drier areas of upland habitat.</p> <p>Due to the potential impact on these animals as a result of the Proposed Development, badgers remain scoped in for further assessment.</p>
Bats (Roosting)	International	Local	<p>All bats in Scotland are classified as EPS and receive legal protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). They are also listed within the SBL as a species of principal importance for nature conservation. The disused Lorg Farmhouse has been found to support small numbers of common and soprano pipistrelle bats. The Site is therefore considered to be of local importance for roosting Pipistrellus bat species and this species and are included in the scope for further assessment. Given the potential risk posed to bats by wind turbines, bats remain scoped in for further assessment.</p>
Bats (commuting and foraging)	International	Local	<p>The Site is formed of extensive open moorland habitat, with many flushes and watercourses and surrounded along its edge by plantation conifer woodland. Although open habitat may provide limited potential for foraging bats, results of the activity survey indicate that some areas of open habitat serve as a frequent commuting pathways. Watercourses woodland edge within the Site also appear to serve as pathways for navigation and provide added foraging opportunities for bats.</p> <p>The activity surveys identified at least five bat species (common pipistrelle, soprano pipistrelle, noctule/ <i>Nyctalus</i> species, <i>Myotis</i> bat species, and brown long-eared bat) utilising the Study Area. The Site is therefore considered to be of local importance for commuting/ foraging bats of these species. Given the potential risk posed to bats from wind turbines, bats remain scoped in for further assessment.</p>
Water vole	National	Negligible	<p>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.</p> <p>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.</p>
Red squirrel	National	Negligible	<p>Desk study records indicate the presence of red squirrel within coniferous plantation within the wider area within 2km of the Site. However, due to the lack of suitable habitat (coniferous plantation and broadleaf/mixed woodland) for this species, the Site is considered of less than local value for red squirrel and is therefore scoped out from detailed assessment.</p>
Reptiles (Adder, common lizard, slow worm)	National	Local	<p>Common lizard was recorded on occasion during field surveys and suitable habitat was identified on Site. This species is relatively common and widespread and given the abundance of similar habitat in the surrounding area, the Site is considered of local value for this species. Slow worm is described as being fairly common across Scotland. Limited</p>

			suitable habitat was recorded across the Site, although suitable habitat is present in the wider area. On this basis the species is also considered of local value to the Site. Adder is also widespread across Scotland. The Site is also considered to be of local value for this species.
Freshwater Fish – salmonids	National	Local	<p>Fish species are afforded protection under one or more of the following conservation legislative frameworks; Conservation (Habitats, &c.) Regulations 1994 (as amended), Salmon and Freshwater Fisheries Act (Consolidation) (Scotland) 2003, Aquaculture and Fisheries (Scotland) Act 2007, and Surface Waters (Fishlife) (Classification) (Scotland) Amendment Regulations 2007.</p> <p>Only trout were recorded within the Study Area. The Kendoon Reservoir acts as a barrier to the Site for migratory fish, which means that Atlantic Salmon are absent from the Study Area.</p> <p>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. Freshwater fish have therefore been scoped in for further assessment.</p>
Fresh Water Pearl Mussel	National	Negligible	This SBL species has not been recorded within the Development Site and its occurrence is unlikely due the absence of its host species, Atlantic salmon, which are unable to access the Study Area due the presence of the Kendoon Dam acting as a barrier to migratory fish species. Due to the absence of this species from the Study Area, FWPM has been scoped out of further assessment.

For those ecological features that remain scoped in following the process as described in Table 11F.1, the following are provided in Table 11F.2: description of the potential environmental change and associated effect (refer to paragraphs 11.6.8 – 11.6.12); a description of the zone of influence for each ecological feature (refer to paragraphs 11.6.13 – 11.6.14 and Table 11.9); 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 Construction Environment Management Plan (CEMP)) 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 11.F.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
Afton Upland pLWS	Direct loss and temporary damage to terrestrial habitats (construction, operation, decommissioning).	Within construction / maintenance / decommissioning areas	N	Part of Afton Uplands pLWS is located within the Site boundary. Its ecological interest comes from the presence of upland mire, montane heath and grassland habitats. There will be direct impacts from habitat loss as a result of the Proposed Development and also indirect effects resulting from changes to the local hydrological processes and the potential for a pollution incident such as sediment run off or spill of contaminant affecting the designated feature. 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.
	Reduction in habitat quality as a result of hydrological connectivity and pollution incidents.	10 m beyond construction maintenance areas	N	
Blanket bog communities (M17, M18, M19, M20, M25)	Direct habitat loss as a result of the Proposed Development.	Within construction / maintenance / decommissioning areas	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. 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.
	Reduction in habitat quality as a result of hydrological connectivity and pollution incidents including dust deposition.	10 m beyond construction maintenance areas	N	
Acid Flush M6	Direct loss and temporary damage to terrestrial habitats. Indirect disturbance and changes to composition of plant communities resulting from hydrological change	Within construction / maintenance / decommissioning areas 250 m beyond construction / maintenance areas.	Y	NVC communities (M6) is classified as potentially highly groundwater dependent, which may be sensitive to damage during construction works within a 250m ZoI. However, based on the assessment provided in Chapter 13: Geology, Hydrology and Geohydrology , no acid flush communities within the Site were identified as actually being groundwater dependent. Nevertheless, potential temporary changes to the local hydrology regime would be mitigated by the adoption of good practice mitigation measures during construction (see Table 11.10 of Chapter 11: Ecology) and it is considered that any potential change in the composition of the vegetation would not have a significant effect on the conservation status of these communities. The M6 communities recorded on Site were botanically unremarkable comprised of common and widespread species.

				Potential effects on M6 acid flush have therefore been scoped out of further assessment.
Wet dwarf shrub heath (M15)	<p>Direct loss and temporary damage to terrestrial habitats.</p> <p>Indirect disturbance and changes to composition of plant communities resulting from hydrological change</p>	<p>Within construction / maintenance / decommissioning areas</p> <p>250 m beyond construction / maintenance areas.</p>	Y	<p>NVC communities (M15) is classified as potentially moderately groundwater dependent, which may be sensitive to damage during construction works within a 250m ZoI. However, based on the assessment provided in Chapter 13: Geology, Hydrology and Geohydrology, no wet heath communities within the Site were identified as actually being groundwater dependent. Nevertheless, potential temporary changes to the local hydrology regime would be mitigated by the adoption of good practice mitigation measures during construction (see Table 11.10 of Chapter 11: Ecology) and it is considered that any potential change in the composition of the vegetation would not have a significant effect on the conservation status of these communities. Potential effects on M15 wet heath have therefore been scoped out of further assessment.</p>
Marshy Grassland (M23)	<p>Direct loss and temporary damage to terrestrial habitats</p> <p>Indirect disturbance and changes to composition of plant communities resulting from hydrological change</p>	<p>Within and up to 50m from construction/ maintenance/ decommissioning activities.</p> <p>250m beyond construction/ maintenance areas</p>	Y	<p>NVC community M23 is classified as potentially high groundwater dependency, subject to the hydrogeological setting, and may therefore be sensitive to damage during construction works within a 250m ZoI. However, based on the assessment provided in Chapter 13: Geology, Hydrology and Geohydrology, no marshy grassland communities within the Site were identified as actually being groundwater dependent. Any potential temporary changes to the local hydrology regime may cause some change in the composition of vegetation but this would not have a significant effect on the conservation status of these communities. Potential effects on M23 marshy grassland plant communities have therefore been scoped out of further assessment.</p>

<p>Semi-improved acid grassland (U2, U4, U5, U6)</p>	<p>Temporary and permanent loss and damage to terrestrial habitats</p>	<p>Within and up to 50m from the construction/ maintenance decommissioning area</p>	<p>Y</p>	<p>NVC community U6 is classified as potentially moderately groundwater dependency, subject to the hydrogeological setting, and may therefore be sensitive to damage during construction works within a 250m ZoI. However, based on the assessment provided in Chapter 13: Geology, Hydrology and Geohydrology, no acid grassland communities within the Site were identified as actually being groundwater dependent. Any potential temporary changes to the local hydrology regime may cause some change in the composition of vegetation but this would not have a significant effect on the conservation status of these communities. The acid grassland communities within the Site have low species richness, mainly due to the grazing pressures they are subject to and are considered to have low conservation value. Potential effects on U6 acid grassland plant communities have therefore been scoped out of further assessment.</p>
<p>Open water</p>	<p>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.</p>	<p>Within the construction/ maintenance/ decommissioning area and up to 10km downstream for the Site through hydrological connectivity.</p>	<p>Y</p>	<p>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 pLWS.</p> <p>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.</p>
			<p>Y</p>	<p>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.</p>
<p>Otter</p>	<p>Disturbance/ displacement to local otter population.</p>	<p>Up to 200m beyond construction/ maintenance/ decommissioning area (based on SNH protected species advice)</p>	<p>N</p>	<p>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.</p>

	Damage to resting sites and disturbance to individuals using resting sites due to elevated levels of disturbance (such as increased, lighting and human disturbance) during construction/operation and decommissioning related works.	Within the construction/ maintenance/ decommissioning area	N	<p>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.</p> <p>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.</p>
	Temporary severance of otter habitats and commuting routes	Within the construction/ maintenance/ decommissioning area	N	
	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.	N	
Badger	Direct mortality as a result of construction related activities	Within construction/ maintenance areas	N	<p>Active badger setts were recorded within the Study Area. Potential impacts are likely going to be limited to disturbance from construction / maintenance / decommissioning works and potential severance of foraging and commuting habitat. There may also be an increased risk of traffic mortalities resulting from the works. Badgers are therefore scoped in for further assessment.</p>
	Disturbance/ displacement of badger during construction and operation due to elevated levels of noise, lighting, and human presence during construction/ operation related works	Within construction/ maintenance areas	N	
	Direct damage to resting places (setts) during construction/ operation related works.	Sett entrances located outside of 30m of construction/ maintenance areas Within construction/ maintenance areas	Y N	

	Temporary severance of badger foraging habitat and commuting routes			
Bats (roosting)	Direct effect in the form of injury/ mortality resulting from damage/disturbance to roosts during the construction phase	Within construction/ maintenance areas	Y	Small numbers of roosting common and soprano pipistrelle bats have been confirmed at the disused Lorg Farmhouse. The Site is therefore considered to be of local importance to these bat species. However the roost will not be directly affected during the construction phase and is outside a likely zone of influence from the proposed works, therefore this impact pathway is scoped out of further assessment.
	Indirect effect in the form of disturbance and/ or displacement of roosting bats resulting from elevated levels of activity during construction phase	Up to 50m from construction activities.	Y	
Bats (commuting and foraging)	Disturbance and/ or displacement of commuting and foraging bats	Within the turbine envelope	N	Bat activity surveys carried out during 2020 identified at least five species of bat (common pipistrelle, soprano pipistrelle, Noctule/ <i>Nyctalus</i> species, <i>Myotis</i> bat species, and brown long-eared bat) utilise the Site. The highest levels of activity were recorded at monitoring locations positioned within open habitat within the southeast of the Study Area, and along the control site at the Water of Ken. Based on levels of activity recorded, the Site is considered to support a locally important population of bat species. Ecobat output data indicated that the Site may pose a high collision risk for common and soprano pipistrelle at specific turbine locations throughout the active bat season; in addition to which there is potential for commuting and foraging bats to be disturbed or displaced during the operational phase of the Proposed Development.
	Direct effect in the form of injury/ mortality from collision with turbines during the operational phase.	Within the turbine envelope	N	
Freshwater fish – brown trout	Deterioration in fish populations due to: loss of, or damage to, degradation of fish habitats due to pollution/siltation during construction.	River catchments that intersect the Site	Y	Brown trout (non-migratory salmonids) was the only fish species recorded during fisheries surveys. No Atlantic salmon were recorded due to the presence of the Kendoon dam which acts as a barrier to migratory fish species. Given that brown trout are widespread and are not currently considered to be in decline throughout much of their normal range, this species has been scoped out of further assessment. Nevertheless, inclusion of good practice protection measures (see Table 11.10, Chapter



				11: Ecology) will cover the presence of this species within watercourses connected with the Site.
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