Section 15
Schedule of Mitigation

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Glossary

Term	Definition
Buffer	An area which defines a theoretical zone of protection for a certain asset(s)
Candela	SI base unit of luminous intensity; that is, luminous power per unit solid angle emitted by a point light source in a particular direction.
Civil Aviation Authority	The public corporation which oversees and regulates all aspects of aviation in the United Kingdom.
Core Path	A public path forming part of a system of paths as identified by the local authorities. Core Paths must cater for everyone and provide reasonable access throughout the relevant authorities' area.
Environmental Impact Assessment	The process by which information about the environmental effects of a project is evaluated and mitigation measures are identified.
Environmental Impact Assessment Report	Statutory obligation to provide environmental assessment of certain developments. The environmental impact assessment report is the collation of these assessments.
Geographic Information System (GIS)	A software system designed to capture, store, manipulate, analyse, manage, and present all types of geographical data.
Ice Throw	The process whereby ice or snow built up on a wind turbine blade breaks off and is thrown to the ground during the operation of the wind turbine.
Micro-Siting	The process of positioning turbines within a specified area for optimum performance and wind yield.
Ministry of Defence	The Ministry of Defence is the British government department responsible for implementing the defence policy set by the Government and is the headquarters of the British Armed Forces
Mitigation	Term used to indicate avoidance, remediation or alleviation of adverse impacts.
Nacelle	The housing unit at the top of the turbine tower, typically containing the generator and gearbox.
NatureScot	Formerly known as Scottish Natural Heritage (SNH)
Power Curve	A graphical representation of the relationship between power output and an independent variable. For a wind turbine this variable would be wind speed.
Radar	A system for detecting the presence, direction, distance, and speed of aircraft, ships, and other objects, through use of radio waves.
Right of Way	A specific route through grounds or property belonging to another, with legal rights established by usage or grant.
ScotWays	A voluntary organisation, charity and a company limited by guarantee whose aims are the preservation, defence, restoration and acquisition of public rights of access for the public benefit in Scotland.
Screening	To conceal, protect, or shelter (someone or something) with a screen or something forming a screen (e.g. buildings, vegetation, fences)
Shadow Flicker	The flickering effect caused when rotating turbine blades periodically cast a shadow over neighbouring properties as they turn, through constrained openings such as windows.
Tip Height	The maximum height of the turbine above ground level, when any given blade is aligned vertically.
Wind Turbine	The structure comprising the tower, nacelle and blades that generate power from the wind by the rotation of the blades.

Abbreviations

Abbreviation	Description
AI	Additional Information
ATC	Air Traffic Control
CAA	Civil Aviation Authority
CEMP	Construction Environmental Management Plan
cd	Candela
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
GI	Ground Investigations
GIS	Geographic Information System
HGV	Heavy Goods Vehicle
HMG	Habitat Management Group
HMEP	Habitat Management and Enhancement Plan
km	Kilometres
m	Metres
MoD	Ministry of Defence
NATS	National Air Traffic Services
NERL	NATS (En Route) plc
OCEMP	Outline Construction Environmental Management Plan
OHMEP	Outline Habitat Management and Enhancement Plan
PRMS	Primary Radar Mitigation Scheme
ScotWays	Scottish Rights of Way and Access Society
SHPP	Species and Habitat Protection Plan
SI	Site Investigations

Schedule of Mitigation

15.1 Introduction

15.1.1 This section of the Additional Information (AI) provides an updated summary of the mitigation measures identified throughout the application to avoid, prevent, reduce or offset the potential effects as a result of the proposed Scoop Hill Community Wind Farm. This updated Section 15 replaces the original Section 15 submitted in the Environmental Impact Assessment Report (EIAR) in November 2020.

15.1.2 The proposed mitigation measures will be applied to a variety of both technical and environmental matters at the following stages of the development: prior to construction, during the construction phase and during the operational phase of the wind farm. This summary does not represent an exhaustive list of all mitigation measures captured within the application. Accordingly, the Schedule of Mitigation should be read in conjunction with both the original EIAR and this AI.

15.1.3 This Schedule of Mitigation has been produced, in line with The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

15.2 Schedule of Mitigation

15.2.1 The key mitigation measures put forward within the Scoop Hill Community Wind Farm application are detailed within Table 15.1 of this AI. By having them contained in one location, it should be easier for the Energy Consents Unit and Scottish Ministers to understand the mitigation required for the Proposed Development.

15.2.2 The purpose of this section is to aid the decision-making process and to ensure the mitigation measures and conditions proposed are attached to any planning consent which may be granted by Scottish Ministers.

15.2.3 Greater detail on the mitigation measures, proposed conditions and why they are required, are provided in the corresponding technical and environmental sections of the EIAR and AI.

15.1.4 It should also be noted that an Outline Construction Environmental Management Plan (OCEMP) was originally submitted in November 2020. This OCEMP still supports the proposed Scoop Hill Community Wind Farm proposal and must be read in conjunction with the AI submission, and this updated Section 15: Schedule of Mitigation.

15.1.5 In addition, an Outline Habitat Management and Enhancement Plan (OHMEP) accompanies the Section 36 application for Scoop Hill Community Wind Farm with the original one submitted with the EIAR in November 2020. However, in light of comments and recommendations from NatureScot and the RSPB, a new OHMEP has been produced and submitted with this AI and fully replaces the version within the EIAR. The OHMEP contains further information and detail relating to best practice measures and suitable habitat management proposals to be implemented, should permission be granted.

Table 15.1: Schedule of Mitigation

Section of the EIAR/ AI	Matter requiring mitigation/condition	Timing	Mitigation
Section 2: Detailed Project Description	Aviation lighting	Construction	As the turbines are all taller than 150m they require to be fitted with aviation lighting. A reduced aviation lighting scheme has been submitted to the CAA and MoD, which they have approved. This will be secured by a planning condition as outlined in Section 14 of the AI, and set out later in this schedule of mitigation.
	Traffic	Construction	A Construction Traffic Management Plan and an Abnormal Loads Delivery Traffic Management Plan will be produced in consultation with and approved by Dumfries & Galloway Council Roads Department and Transport Scotland. This will be secured by a planning condition.
	Micro-siting	Construction	SEPA have confirmed their requirements in relation to the micro-siting of infrastructure, which is to be secured by planning condition as follows: *An Environmental Clerk of Works (ECoW) will be appointed and will manage the micro-siting of infrastructure to further reduce the risk to environmentally sensitive locations. The ECoW will manage the micro-siting of up to 100m, with consultation with SEPA on any micro-siting greater than 50m, if this allows for further mitigation through avoidance of sensitive habitats/features. The proposed micro-siting will also be subject to the following restrictions:* • *No micro-siting shall take place to within a 50m buffer distance of a watercourse (as per AI Figure 10.2.4 – Environmental Impact Zones (Maps 1 and 2) in the EIAR);* • *No micro-siting shall take place to areas of peat of greater depth than the original location except for infrastructure which is to be floated in areas of peat;* • *No micro-siting shall take place to within areas hosting GWDTE; and* • *No micro-siting shall take place to within the buffers identified for private water supplies (Technical Appendix 10.4 of the EIAR).*
	Watercourse Crossings	Construction	Each watercourse crossing will be designed and constructed in line with current best practice guidance and in accordance with the SEPA Construction Site License and authorization. Contact the SEPA permitting team in advance of any work commencing on site regarding the required water crossing works, and other any engineering works in and around the water environment, to discuss the requirements for the site under CAR and the correct level of authorisation required.
	Blasting	Construction	If blasting is required, then a Blasting Method Statement will be written and agreed prior to construction and blasting commencing.
	Waste	Construction	A Waste Management Strategy will be written, subject to approval by the Local Authority and SEPA. This will be included within the CEMP.
	Access Tracks	Construction	Floating construction will be used for all access tracks which are located on peat which is above 0.5m in depth or deeper, and on priority habitat.
	Borrow Pits	Construction	A Borrow Pit Site Management Plan (BPSM) will be produced prior to construction commencing, once the GI and SI works have been completed, which will subsequently inform the BPSM. The BPSM will be subject to approval by SEPA and NatureScot.
	All construction related works and the management of them	Construction	A site-specific Construction Environmental Management Plan (CEMP) will be written and approved by the Local Authority, SEPA and NatureScot prior to construction commencing. This will also include a Pollution Prevention Plan which is required for the Construction Site License, again subject to approval by SEPA. An outline CEMP was submitted with the S36 application, which accompanied the EIAR in November 2022.
	Health & Safety	Construction and Operation	Fencing installed around certain areas of construction works e.g., foundations, borrow pits, to prevent livestock/wildlife falling into excavations. It is not envisaged that there will be a need for any diversion of Core Paths during the construction phase. Paths will be appropriately managed during construction for health and safety purposes. Signage and way markers would be deployed to assist walkers. At any crossing points there will be signage requesting that walkers call a banksman to help them cross the access track during the construction period. The wind farm will be operated and managed in accordance with strict health & safety standards at all times throughout its operation life.
	Decommissioning	Decommissioning	A Decommissioning Bond will be put in place with the Local Authority. A Decommissioning Method Statement will be produced and agreed with the Local Authority, landowners and statutory consultees.
Section 5: Socio-economics, Population and Community Involvement	Safety	Construction	Fencing installed around certain areas of construction works e.g., foundations, borrow pits, to prevent livestock/wildlife falling into excavations.
	Safety	Construction	It is not envisaged that there will be a need for any diversion of Core Paths during the construction phase. Paths will be appropriately managed during construction for health and safety purposes. Signage and way markers would be deployed to assist walkers. At any crossing points there will be signage requesting that walkers call a banksman to help them cross the access track during the construction period.
	Traffic	Construction	To reduce traffic and transport-related risks and associated impacts, Traffic Management Plans will be produced in conjunction with Transport Scotland and the Local Authority Roads Department.

	Safety	Operation	The wind farm will be operated and managed in accordance with strict health & safety standards at all times throughout its 40 year operational life.
Section 6: Landscape and Visual Impact Assessment	Turbine layout, infrastructure design	Design	The layout design of the wind farm has been an important part of the EIA process. The LVIA has been carried out in conjunction with the design iteration of the Proposed Development which informed the final layout and infrastructure design. Landscape and visual mitigation measures have been incorporated through the iterative design process in order to reduce potential adverse landscape and visual effects, which has included the removal of turbines and variation to turbine tip heights and detailed consideration of the DGC LDP2 Spatial Framework Map 8 and the Supplementary Guidance 'Wind Energy Development: Development Management Considerations' - Map 5. The design process is further detailed in Section 3: Site Selection, Design and Evolution of the EIAR. Post submission consultation and community engagement has prompted further design changes which include the removal of 17 turbines and associated access tracks, and the addition of 2 new turbines within the forestry. The amended layout therefore incorporates further mitigation by design which has resulted in reduced landscape and visual effects, alongside reduced impacts on ornithology and cultural heritage, thereby creating a wind farm which is appropriate for the landscape and local environment. The rotor diameter of the proposed turbines has also increased, due to advancements in turbine technology in the last few years. A Design & Access Statement (DAS) has been submitted with the AI which demonstrates these changes in greater detail, along with an updated Section 3: Site Selection, Design and Evolution which is part of the overall AI submission.

	Turbine aviation lighting	Operation	All of the wind turbines in the proposed Scoop Hill Wind Farm will have tip heights exceeding 150 metres above ground level and will therefore trigger the ANO Article 222 requirement for visible spectrum lighting. In order to meet the requirements of users of the night low level airspace while reducing the night-time visual impact of such aviation lighting on observers on the ground, the Applicant have sought and obtained CAA approval to install a reduced aviation lighting scheme on the turbines other than in accordance with the ANO, as provided in ANO Article 222(7).
			
			The proposed Scoop Hill lighting scheme which has been approved by the CAA and the MoD, is as follows:
			• 17 of the 60 turbines – marking the corners and perimeter of the wind farm – will be lit with 2000 candela steady red lights and infra-red lights on the nacelle.
			  ○ A second 2000 candela light will be fitted to those same 17 turbines, to act as an alternate, in the event of failure of the main light.
			  ○ These lights are capable of being dimmed to 10% of peak intensity when the lowest visibility as measured at suitable points around the wind farm by visibility measuring devices exceeds 5km.
			• All other perimeter turbines (17 in total) will be lit with infra-red lights only.
			• 26 turbines in the interior of the wind farm will not be fitted with any lights.
			• Intermediate level 32 candela lights at the mid-tower position will not be installed on any of the turbines.
			
			The reduced lighting scheme will bring a level of mitigation that has been successfully achieved at other wind farm developments in Scotland and therefore the Applicant suggests the implementation of the following condition:
			
			(1) Aviation lighting shall be installed in accordance with the aviation lighting scheme described in the document "Scoop Hill Community Wind Farm, Dumfries and Galloway: Proposal for Reduced Lighting Scheme" (Report No. 20/869A/CWP/7) dated November 2022 as approved by the CAA on 21 December 2022 (the Aviation Lighting Scheme).
			
			(2) The Aviation Lighting Scheme shall be fully implemented throughout the lifetime of the development, unless any change to the Aviation Lighting Scheme is approved in writing by the Scottish Ministers.

Section 7: Ornithology	Species Protection	Construction and Operation	A Habitat Management and Enhancement Plan (HMEP) and a Species Protection Plan (SPP) will be written as part of a programme of mitigation measures for ornithology. These documents will be subject to approval from a variety of organisations. Their main purpose will be to ensure disturbance and potential impacts are minimised, all work is carried out in accordance with relevant wildlife legislation, will seek to improve the value of the area through changes to land management, and increase overall biodiversity through targeted management for specific species. An updated Outline HMEP has been submitted with this AI submission. A SPP will be written for the following bird species: Osprey, Black Grouse and Common Crossbill, with the SPP's agreed with NatureScot prior to any construction commencing.
	Ecological Clerk of Works	Pre-construction, Construction and Operation	An Ecological Clerk of Works (ECoW) will be appointed to oversee all construction work and to ensure it is undertaken correctly and in accordance with legislation, good practice guidance and all approved planning conditions and requirements. The ECoW will also have the power to suspend works if an incident or breech occurs on site.
	Habitat Management Group	Pre-construction, Construction and Operation	A Habitat Management Group (HMG) will be set up to oversee the production and delivery of the HMEP. The HMG is likely to consist of representatives from various organisations including NatureScot, Dumfries & Galloway Council, the RSPB along with the wind farm developer, landowners and the ECoW. The HMG will review the habitat management and enhancement works and will be responsible for deciding if the land management proposals are working or if they need altering.
	Pre-construction monitoring and surveying	Pre-construction	Prior to construction commencing, a number of species will be monitored in order to identify nest locations or leks. This will mainly focus on Golden Eagles, Goshawk, Osprey, Merlin, Peregrine and Black Grouse.

	Ground clearance, key-hole felling and breeding birds	Construction	In order to minimise the potential impacts on breeding birds during construction, all ground clearance works including key-hole felling will be undertaken outside the bird breeding season, which is generally accepted to be mid-March to August.
	Breeding Season	Construction	If ground clearance work is required during the bird breeding season, this will be kept to a minimum. The ground will be checked by a competent ornithologist prior to works commencing, with a maximum of five days to clear each stage after each nest check, before checking is required again.
	Micro-siting	Pre-construction and Construction	SEPA have confirmed their requirements in relation to the micro-siting of infrastructure, which is to be secured by planning condition as follows: *An Environmental Clerk of Works (ECoW) will be appointed and will manage the micro-siting of infrastructure to further reduce the risk to environmentally sensitive locations. The ECoW will manage the micro-siting of up to 100m, with consultation with SEPA on any micro-siting greater than 50m, if this allows for further mitigation through avoidance of sensitive habitats/features. The proposed micro-siting will also be subject to the following restrictions:* • *No micro-siting shall take place to within a 50m buffer distance of a watercourse (as per Figure 10.2.4 – Environmental Impact Zones (Maps 1 and 2) in the EIAR);* • *No micro-siting shall take place to areas of peat of greater depth than the original location except for infrastructure which is to be floated in areas of peat;* • *No micro-siting shall take place to within areas hosting GWDTE; and* • *No micro-siting shall take place to within the buffers identified for private water supplies (Technical Appendix 10.4 of the EIAR).*
	Buffer zones	Construction	Buffer zones will be implemented as required in order to minimise potential disturbance and displacement. Buffers for black grouse leks are 750m, where no work will take place within 750m of a lek during April and May, before 9am, in order to avoid disturbing lekking birds. Also, no turbines located within 500m of a lek. A pre-construction survey will identify any goshawk nests and no work will take place within a 1km buffer during the breeding season.
	Golden eagle mitigation	Pre-construction, Construction and operation	Ornithological Surveys undertaken over the period (August 2017 – November 2019) identified an active single eagle with no eagle nests within the site. Post submission consultations responses and further field work in 2020 have subsequently identified further eagle activity (resulting from an eagle release program outwith the redline boundary). To mitigate this through design as per the mitigation hierarchy, 17 turbines have been removed from the wind farm layout.
	Post-construction monitoring	Operation	Post-construction (post-development) monitoring is used to determine the effectiveness of the mitigation measures implemented and is a crucial element in assessing the true extent of impacts on birds from wind farm developments. Various bird species including goshawk and golden eagle will be monitored in the 1st year following the completion of construction and commissioning works. They will then be monitored in Years 2 and 3 as well, with reports produced which will be shared with the relevant organisations like NatureScot, RSPB and the Local Authority. Further monitoring will take place in Year 5, Year 10, Year 15 and Year 20.
	Decommissioning works	Decommissioning	As decommissioning works are similar in nature to construction works and have the greatest potential for disturbing and displacing birds during the nesting and breeding season, the decommissioning of the site will be undertaken outside of the bird breeding season to minimise potential impacts on nesting and breeding birds onsite.
	All construction related works and the management of them	Construction	A Construction Environmental Management Plan will be written and approved by the Local Authority, SEPA and NatureScot prior to construction commencing. This will also include a Pollution Prevention Plan which is required for the Construction Site License, again subject to approval by SEPA. The CEMP will also include specific reference to mitigation measures targeted at ornithology, such as avoiding the bird breeding season, ground clearance works, micro-siting, implementation of buffer zones etc. An outline CEMP has been submitted with the original EIAR.
Section 8: Ecology	Habitat and Species Protection	Construction and Operation	A Habitat Management and Enhancement Plan (HMEP) and Species Protection Plans (SPP) will be written as part of a programme of mitigation measures for habitats and protected mammals and other species, including fish. These documents will be subject to approval from a variety of organisations who have biodiversity duties such as NatureScot and SEPA. Their main purpose will be to ensure disturbance and potential problems for key species are minimised, all work is carried out in accordance with relevant wildlife legislation, will seek to improve the value of the area through changes to land management, and increase overall biodiversity through targeted management and enhancement for specific species. An Outline HMEP was submitted with the EIAR, and a replacement version accompanies the AI submission.
	Habitat Management Group	Pre-construction, Construction and Operation	A Habitat Management Group (HMG) will be set up to oversee the production and delivery of the HMEP. The HMG is likely to consist of representatives from various organisations including NatureScot, Dumfries & Galloway Council, the RSPB along with the wind farm developer, landowners and the ECoW. The HMG will review the habitat management and enhancement works and will be responsible for deciding if the land management and enhancement proposals are working or if they need altering.
	Ecological Clerk of Works	Pre-construction, Construction and Operation	An Ecological Clerk of Works (ECoW) will be appointed to oversee all construction work and to ensure it is undertaken correctly and in accordance with legislation, good practice guidance and all approved planning conditions and requirements, to ensure the protection of habitats and wildlife. The ECoW will also have the power to suspend works if an incident or breach occurs on site.
	All construction related works and the management of them	Construction	A Construction Environmental Management Plan will be written and approved by the Local Authority, SEPA and NatureScot prior to construction commencing. This will also include a Pollution Prevention Plan which is required for the Construction Site License, again subject to approval by SEPA. The CEMP will also include specific reference to mitigation measures targeted at habitats and wildlife, such as use of floating access tracks on ground where peat is greater than 0.5m, installation of ramps and fencing in deep excavations, micro-siting, implementation of buffer zones etc. An outline CEMP has been submitted with the original EIAR.

	Micro-siting	Pre-construction and Construction	SEPA have confirmed their requirements in relation to the micro-siting of infrastructure, which is to be secured by planning condition as follows: *An Environmental Clerk of Works (ECoW) will be appointed and will manage the micro-siting of infrastructure to further reduce the risk to environmentally sensitive locations. The ECoW will manage the micro-siting of up to 100m, with consultation with SEPA on any micro-siting greater than 50m, if this allows for further mitigation through avoidance of sensitive habitats/features. The proposed micro-siting will also be subject to the following restrictions:* • *No micro-siting shall take place to within a 50m buffer distance of a watercourse (as per Figure 10.2.4 – Environmental Impact Zones (Maps 1 and 2) in the EIAR);* • *No micro-siting shall take place to areas of peat of greater depth than the original location except for infrastructure which is to be floated in areas of peat;* • *No micro-siting shall take place to within areas hosting GWDTE; and* • *No micro-siting shall take place to within the buffers identified for private water supplies (Technical Appendix 10.4 of the EIAR).*
	Surface Water and drainage	Construction	Robust surface water management measures and onsite drainage measures (e.g. suitably sized attenuation ponds, silt traps and silt nets, cross drains etc.), will be put in place following good practice. These will be overseen and agreed with the ECoW and regular checks will take place to ensure all measures are working as intended. All pollution prevention measures will be detailed in a Pollution Prevention Plan (PPP) required to obtain a SEPA construction site license which will also form part of the CEMP.
	Waste Management	Construction	A Waste Management Plan will be written and included in the CEMP which will ensure all waste is correctly handled, stored, recycled and disposed of via certified waste contractors. This will also include the storage and handling of fuels, oils, chemicals and all other materials required during the construction process.
	Working area	Construction	The working area will be kept to a minimum in order to avoid unnecessary peripheral habitat disturbance and the accumulation of unnecessary amounts of loose material that might be washed away during periods of heavy rainfall.
	Floating construction	Construction	Access tracks will be built using 'floating' construction techniques in areas where peat is greater than 0.5m in depth, as well as for traversing mire habitats, as it allows for water to pass underneath the track and through lower layers, thus reducing potential impacts on the hydrology of the habitat and ground.
	Deep Excavations	Construction	Before and during deep excavations (e.g. borrow pits, foundations), best practice will be employed to ensure wildlife cannot access the excavations, however if they do, they can escape. Measures include temporary fencing around the excavations, installation of a ramp etc. Settling ponds will also be used to store excess water accumulating in the excavation areas.
	Habitat Enhancement	Construction and Operation	Habitat enhancement work will take place to improve the condition of the habitats found on site. This will include, but is not limited to, the following: restoration of dry modified bog via grip-blocking and reduced grazing, creation of mire habitats through basin mires as part of the borrow pit restoration measures, heather management to benefit black grouse with the commitment to swipe rather than burn the heather, and the planting of cleuch riparian woodland along with ground flora planting and a pollinator corridor.
	Bats	Construction / Operation	Key-hole felling to be undertaken in winter/early spring when bats are less likely to be active. Any construction work which takes place during the active season for bats, must be limited to daylight hours, with no work undertaken at dawn or dusk near to preferred foraging areas. This would also avoid the need for lighting at night which could deter bat foraging, but also would attract moths to the lights which the bats would then feed on. Turbines to be located with a minimum distance of 50m from the blade tip to the forestry edge. Bat boxes erected in suitable locations, such as farmhouses or in woodland which are distant from the turbines. When the turbines are operational, feathering of the turbine blades at low wind speeds will be implemented, for the turbines where bats are present.
	Otters (and water voles)	Construction	A pre-construction survey will be undertaken to determine the current status of otters (and water voles) onsite and if there has been any change to their use of the site, mitigation measures are implemented accordingly to ensure otters are protected. The ECoW will ensure the location of access tracks and structures are more than 30m away from a holt, potential holt or lie-up (200m from a breeding holt, reduced to 100m depending on the nature of the works, topography and natural screening) and a strict precautionary method of working will be set in place. Strict pollution prevention measures implemented to ensure no impacts on water quality.
	Badgers	Construction	A pre-construction survey will be undertaken to determine the current status of badger onsite, checking existing setts and searching for any newly excavated setts. If setts are identified close to the turbines and wind farm infrastructure, a 30m buffer will be implemented around any setts to avoid potential disturbance to badgers inside during the construction works, which will be increased to 100m during the breeding season. If there is pile driving or blasting required, then the buffer will be increased to 100m. Disturbance of these setts will be avoided during the breeding season (December to June) and the buffer zone will be set and monitored by the ECoW. Setts within 100m of a borrow pit will require a license from NatureScot and excavation will not take place during December to June.
	Red Squirrels	Construction	A pre-construction check will take place where all key-hole felling is due to take place to check for dreys. All key-hole felling will take place outwith the breeding season to reduce the impact on breeding red squirrels. No broad-leaved tree planting will take place within the forest as this may attract grey squirrels.

	Pine Marten	Construction	Pre-construction checks will take place where all felling is due to take place, to check for pine marten dens prior to the felling works. All key-hole felling will take place outwith the breeding season to reduce the impact on breeding pine marten. Pine marten denning boxes will be installed, outwith the conifer plantation in areas of broad-leaved woodland, in order that they are more likely to prey on grey squirrels rather than the red squirrels.
	Migratory salmonids, lampreys and eels	Pre-construction, Construction and operation	Pre-construction surveys of the watercourses will take place along with water monitoring. All infrastructure will be located a minimum of 50m from watercourses, except for where the access track needs to cross a watercourse and then appropriate culverts/pipes/bridges will be installed which are designed to allow fish passage at all times and their construction is to be agreed with SEPA, the ECoW and the River Annan District Salmon Fishery Board prior to implementation. Surface water management measures to be implemented in accordance with best practice (SEPA Pollution Prevention Guidelines) and the CEMP, along with the Pollution Prevention Plan, to avoid the watercourses becoming contaminated.
	Reptiles and Amphibians	Construction	Pre-construction checks for the presence and location of reptiles and amphibians. Ground clearance works will be undertaken outwith the spring and summer months in order to minimise potential disturbance to reptiles. Any suitable hibernaculum's used by hibernating reptiles must be de-constructed in July (post breeding and prior to hibernation), which will be overseen by the ECoW. Any new hibernaculum's will be constructed on site on moorland, as advised by the ECoW. Creation of wildlife friendly attenuation ponds for construction which will be left on site following completion of construction works, which will have shallow sides and will be suitable for use by amphibians.
	Watercourse Crossings	Construction and Operation	All watercourse crossings will be designed with sufficient headroom to allow passage by otters along watercourses, including during spate conditions as well as providing passage for fish species, whilst also ensuring good water quality and flow. This may necessitate the inclusion of ledges and diversionary fences to facilitate movement of otters however the specific design of each watercourse crossing will be agreed with SEPA prior to their construction. During the construction and installation of the crossings, if any culverts or piping is stored on site, they will be capped to avoid entrapment of wildlife inside. During operation, the watercourse crossing points will be checked and regularly maintained to ensure they do not become blocked which would then inhibit the movement of species such as fish and otter who rely on the watercourses.
	Invasive Non-Native Species (INNS)	Construction	SEPA have recommended a site survey for Invasive Non-Native Species (INNS). If any INNS are identified onsite, then a biosecurity plan should form part of the CEMP and subsequent construction license. This would be done at the detailed design stage of the proposal post-consent when ground investigations are undertaken, and prior to construction commencing.
	Decommissioning	Decommissioning	The measures implemented during the construction phase should also be implemented during the decommissioning phase, in line with legislation and best practice at the time when decommissioning is due to take place. Consideration however should be given to the actual status of the species and habitats present on site at that time, with pre-decommissioning checks and surveys undertaken accordingly as recommended by an ECoW.
	Toolbox talks	Construction and Decommissioning	All construction and decommissioning workers to be briefed on the habitat and species onsite and all measures in place to ensure the protection of the habitats and species e.g. location of badger setts and the marked-out exclusion zone around the entrances to the setts. All workers to follow best practice at all times.
Section 9: Cultural Heritage	Written Scheme of Investigation	Construction	A Written Scheme of Investigation (WSI) will be produced which details the location and scope of the archaeological evaluation works to be undertaken on site during the construction phase. The Written Scheme of Investigation will be agreed with the Dumfries & Galloway Council Archaeology Officer prior to construction commencing. For the Border Crawford-Inveresk possible Roman road (MDG5027 and MDG7271), LiDAR features Li75 and Li76, ridge and furrow earthworks MDG5230, MDG5228 and MDG25384, military training site MDG9501, and LiDAR anomalies Li19, Li25 and Li37 shall be mitigated by a programme of archaeological evaluation which would comprise archaeological monitoring of groundworks during construction. Archaeological monitoring may also be required for construction ground works for the proposed western site access track, to address the risk of unknown archaeological remains within this area of increased archaeological potential. In the case of undiscovered archaeological remains which are found during the construction works, the programme of archaeological evaluation will identify any significant undiscovered remains and allows for effects upon them to be mitigated by avoidance and preservation in situ where possible, or otherwise by excavation and recording.
	Excavation and Recording	Construction	Where construction effects are unavoidable, these will be offset by excavation and recording of the remains in accordance with NPF4 Policy 7o), PAN2/2011, sections 25-27, Dumfries & Galloway Local Development Plan Policy HE3 and Supplementary Guidance; Part 1 Wind Energy Development: Development Management Consideration F Historic Environment and Cultural Heritage, by the appointed archaeological contractor/consultant who is undertaking the WSI.

	Fencing of assets	Pre-construction and Construction	Fencing off of the following assets will take place prior to construction commencing: - Laverhay Cottage, enclosure 480m NNE of (SM12721) - Chapel Lea, Wamphray possible chapel (MDG7279) - Faulds Farmstead or sheepfold (MDG24793) - Shankend/Watchy Hass Scooped Settlement (MDG7293) - Craigfield Farmstead (MDG10462). Further guidance on appropriate mitigation can be found at Part 6 (Historic Environment/Archaeology) of NatureScot's Good Practice During Wind Farm Construction Document (NatureScot, 2019).
	Toolbox talks	Construction	Construction workers will be given toolbox talks regarding the onsite cultural heritage assets, those which have been fenced off for their protection and the archaeological watching brief which will be taking place. The workers have a duty to report anything they discover whilst excavating onsite and they must avoid working near the assets which have been marked-out and fenced off to ensure no direct impacts occur on those important assets.
Section 10: Hydrology, Geology and Hydrogeology	Turbine layout, infrastructure design	Design	Hydrological influences have been incorporated into the final design and layout of the turbines and associated infrastructure as it has been a key requirement that the Proposed Development helps maintain or improve the local hydrology, as a poor design would result in significant implications to the hydrological environment with secondary effects on soils and ecology. More specific information relating to 'Mitigation by Design' based on hydrological factors is detailed in Section 3 and Section 10 (and its appendices) of the EIAR and the AI. These include but are not limited to location and depth of peat, buffer distance from watercourses, location of existing access tracks and watercourse crossings points, slope angles, keyhole felling and other onsite considerations. The revised layout now presented in this AI has further reduced potential hydrological impacts, as there are fewer borrow pits, 15 less turbines, reduced length of access tracks required, a reduction in the number of watercourse crossings required.
	All construction related works and the management of them	Pre-construction, Construction and Operation	A site-specific Construction Environmental Management Plan will be written and approved by the Local Authority, SEPA and NatureScot prior to construction commencing. This will also include a Pollution Prevention Plan which is required for the Construction Site License, again subject to approval by SEPA. The CEMP will facilitate the implementation of industry good practice measures in such a manner as to prevent or minimise effects on the surface and groundwater environments. The CEMP will include information on the following: - Drainage – all runoff derived from construction activities and site infrastructure will not be allowed to directly enter the natural drainage network. All runoffs will be adequately treated via a suitably designed drainage scheme with appropriate sediment and pollution management measures. Drainage will be designed to accommodate storm flows based on a 1 in 200-year event plus climate change to help maintain the existing hydrological regime; - Storage – all equipment, materials and chemicals will be stored well away from any water courses. Chemical, fuel and oil stores will be sited on impervious bases with a secured bund at a designated location; - Vehicles and refueling – standing machinery will have drip trays placed underneath to prevent oil and fuel leaks causing pollution. Where practicable, refueling of vehicles and machinery will be carried out in designated areas, on an impermeable surface and well away from any watercourses; - Maintenance – maintenance to construction plant will be carried out in designated zones, on an impermeable surface well away from any watercourses or drainage, unless vehicles have broken down necessitating maintenance at the point of breakdown, where special precautions will be taken; - Welfare facilities – onsite welfare facilities will be adequately designed and maintained to allow the appropriate disposal of sewage; - Cement and concrete – use of wet concrete in and around watercourses will be avoided and carefully controlled through implementation of the buffer zones where applicable and good practice construction methods; - Monitoring Plan – all activities undertaken as part pf the proposal will be monitored throughout the construction phase to monitor environmental compliance. Water quality monitoring will also occur throughout each phase of the Proposed Development to maximise the effectiveness of embedded mitigation measures whilst monitoring effects on the hydrological environment; - Contingency Plans – a site specific Emergency Response Plan will be implemented to allow plans to be put in place to manage a spill or other pollution incident. Emergency equipment will be available on site (e.g. spill kits), training and advice on action to be taken and who should be informed in the event of a pollution incident; - Training – all staff and construction personnel will be trained in both normal and emergency operations and procedures and made aware of any restrictions and highly sensitive areas on site; and - Pollution Prevention – Detailed mitigation and good practice construction techniques will be implemented which will detail site specific measures relating to Runoff and Sediment management, pumping, and dewatering of excavations, concrete works, foul water. An outline CEMP was submitted with the EIAR, and this will be developed into a site-specific CEMP post consent and prior to any construction work commencing onsite. It will incorporate all requirements as requested by the consultees, mainly SEPA, NatureScot and DGC.

	Watercourse Crossings	Construction and Operation	All watercourse crossings will be designed to maintain onsite hydrology as well as with sufficient headroom to allow free passage of mammals and aquatic species in the watercourses, whilst also ensuring good water quality and flow. This may necessitate the inclusion of ledges and diversionary fences to facilitate movement of otters. However, the specific design of each watercourse crossing will be agreed with SEPA/NatureScot prior to their construction. During the construction and installation of the crossings, if any culverts or piping is stored on site, they will be capped to avoid entrapment of wildlife inside. During operation, the watercourse crossing points will be checked and regularly maintained to ensure they do not become blocked which would then inhibit the movement of species such as fish and otter who rely on the watercourses.
	Migratory salmonids, lampreys and eels	Pre-construction, Construction and operation	Pre-construction surveys of the watercourse will take place along with water monitoring. All infrastructure will be located a minimum of 50m from watercourses, except for where the access track needs to cross a watercourse and then culverts/bridges will be installed which are designed to allow fish passage at all times and their construction to be agreed with SEPA, the ECoW and the River Annan District Salmon Fishery Board. Surface water management measures to be implemented in accordance with best practice and the CEMP, along with the Pollution Prevention Plan, to avoid the watercourses becoming contaminated.
	Micro-siting	Pre-construction and Construction	SEPA have confirmed their requirements in relation to the micro-siting of infrastructure, which is to be secured by planning condition as follows: An Environmental Clerk of Works (ECoW) will be appointed and will manage the micro-siting of infrastructure to further reduce the risk to environmentally sensitive locations. The ECoW will manage the micro-siting of up to 100m, with consultation with SEPA on any micro-siting greater than 50m, if this allows for further mitigation through avoidance of sensitive habitats/features. The proposed micro-siting will also be subject to the following restrictions: • No micro-siting shall take place to within a 50m buffer distance of a watercourse (as per Figure 10.2.4 – Environmental Impact Zones (Maps 1 and 2) in the EIAR); • No micro-siting shall take place to areas of peat of greater depth than the original location except for infrastructure which is to be floated in areas of peat; • No micro-siting shall take place to within areas hosting GWDTE; and • No micro-siting shall take place to within the buffers identified for private water supplies (Technical Appendix 10.4 of the EIAR).
	Surface Water and drainage	Construction	Robust surface water management measures and onsite drainage measures (e.g. suitably sized attenuation ponds, silt traps and silt nets, cross drains etc.), will be put in place following good practice. These will be overseen and agreed with the ECoW and regular checks will take place to ensure all measures are working as intended. All pollution prevention measures will be detailed in a Pollution Prevent Plan (PPP) required to obtain a SEPA construction site license which will also form part of the CEMP.
	Waste Management	Construction	A Waste Management Plan will be written and included in the CEMP which will ensure all waste is correctly handled, stored, recycled, and disposed of via certified waste contractors. This will also include the storage and handling of fuels, oils, chemicals, and all other materials required during the construction process. With regards to forestry waste, all timber and brash material will be removed from site, including the brash used for brash mats during the construction phase.
	Floating construction	Construction	Access tracks will be built using 'floating' construction techniques in areas where peat/organic soil is greater than 0.5m in depth, as well as for traversing mire habitats, as it allows for water to pass underneath the track and through lower layers, thus reducing potential impacts on the hydrology of the habitat and ground.
	Ecological Clerk of Works	Pre-construction, Construction and Operation	An Ecological Clerk of Works (ECoW) will be appointed to oversee all construction work and to ensure it is undertaken correctly and in accordance with legislation, good practice guidance and all approved planning conditions and requirements. The ECoW will also have the power to suspend works if an incident or breach occurs on site.
	Peat	Construction and Operation	A Peat Management Plan will be produced (a draft PMP is included as a Technical Appendix to Section 10 in the EIAR), which provides further information and guidance on the environmentally compliant re-use and management of excavated peat across the proposed Scoop Hill Community Wind Farm (the Proposed Development). The PMP will have a strategy to manage peat in a sustainable manner, whilst minimising excavation via the adoption of appropriate construction methods. Targeted re-use of peat as part of the reinstatement works shall also be a primary consideration. The PMP will be approved by SEPA prior to construction commencing.
	Private Water Supplies	Construction	There are no groundwater abstractions or groundwater fed private water supplies which are located within 250m of proposed infrastructure. Nonetheless, standard good practice mitigation measures will be deployed. Details will be included within the site-specific CEMP as it will include the following areas: Silt Laden Runoff, Fuels and Oils, Surveillance and Site Audits, Emergency Contingency Measures (spill response, specialist contractors, hazards).
	Peat Slide	Construction	A revised Peat Landslide Hazard Risk Assessment (PLHRA), as a result of the revised layout presented in the AI, is included in Section 10 of the AI as a Technical Appendix (10.2). Mitigation measures include drainage design, weather and ground monitoring and regular inspections, de-watering operations, robust and strict controls on the phasing and pace of construction in specific locations, peat depth contour mapping, implementation of specific geotechnical engineering construction techniques, use of appropriate machinery and many other mitigation measures such as the use of experienced and competent construction contractors, detailed monitoring during construction, identification of environmentally sensitive zones, and a detailed Construction Method Statement (CMS) which incorporates the conclusion of the peat stability report and develops the appropriate mitigations to respond to peat slide risk.

	Site Investigations	Pre-construction	Prior to construction commencing, a detailed intrusive ground investigation survey will be carried out (post-consent). This will seek to further characterize the geology, soils, and peat deposits with emphasis on advanced in-situ shear strength testing and targeted undisturbed sampling and laboratory testing. The results can be used to further refine and finalise the turbines positions and infrastructure locations.
Section 11: Noise	Construction noise	Construction	Noise during construction works can be controlled by generally restricting works to standard working hours and exclude Sunday's unless specifically agreed otherwise.
	Noise Control Plan	Construction	A Noise Control Plan would be produced that includes procedures for: - Ensuring compliance with statutory or other identified noise control limits; - Minimizing noise from construction related traffic on the existing road network; - Ensuring all works are carried out in accordance with the principle of 'Best Practicable Means' as defined in the Control of Pollution Act 1974; - General induction training for site operatives, and specific training for staff having responsibility for particular aspects of controlling noise from the site.
	Blasting	Construction	If blasting is required for the development, a pre-blasting noise management plan will be prepared which would identify the most sensitive receptors that could potentially be affected by blasting noise. The Plan will contain details of the proposed frequency of blasting and proposed monitoring procedures. The operator will inform the nearest residents of the proposed times of blasting and of any deviation from this programme in advance of the operations.
	Wind Turbines and Battery Storage facility	Operation	Operational noise of the wind turbines would ultimately be controlled via planning conditions which set out noise limits for the Proposed Development. It should be noted that the site has been designed such that predicted noise levels associated with the operation of the Proposed Development are expected to meet the requirements of ETSU-R-97 with all turbines operating unrestricted. Therefore, no mitigation measures are required as the operational noise levels meet the relevant derived noise limits. Operational noise of the battery energy storage facility as per the BS 4142 assessment shows that the noise is likely to have low impact at all noise sensitive receptors, therefore no further mitigation is required.
Section 12: Traffic and Transport	Construction Traffic	Construction	*Prior to the commencement of construction, a Construction Traffic Management Plan will be submitted to and approved by Transport Scotland and Dumfries & Galloway Council Roads Department to ensure that all general construction traffic can be transported along the [trunk road/ local public roads] network safely and efficiently. This is expected to include details on the final access route(s) for construction traffic, construction traffic management measures, emergency services liaison procedures, details of additional speed restrictions and any temporary signage which is required*.
	Abnormal Load Deliveries	Construction	*Prior to the commencement of abnormal load deliveries to site, the proposed route and Abnormal Load Traffic Management plan for any abnormal loads on the [trunk road/ local public roads] network will be approved by Transport Scotland and Dumfries & Galloway Council Roads Department, prior to the movement of any abnormal loads. The TMP shall include details of the final access route for all abnormal load vehicles and traffic, swept path analysis and details on the temporary removal of any street furniture, junction widening, traffic management measures. There will also be details on the timing of the abnormal loads, the restrictions in place, convoys and abnormal load escorts, temporary signage and a road haulers code of conduct to be followed at all times.*
	Signing, temporary traffic control measures	Construction	During the delivery period of the wind turbine construction materials, any additional signing or temporary traffic control measures deemed necessary, due to the size or length of any loads being delivered or removed, must be undertaken by a recognised QA traffic management consultant, to be approved by Transport Scotland before delivery commences. This is to ensure that the transportation will not have any detrimental effect on the road and structures along the route.
	Decommissioning Traffic	Decommissioning	Baseline traffic flows on all of the affected roads at the end of the 40-year operational life of the wind farm is unknown therefore any potential impacts on roads as a result of the decommissioning works, would be handled in a similar way as for the construction phase. A Decommissioning Plan, incorporating an updated TMP, would be drawn up and agreed at least 12 months prior to decommissioning commencing in consultation with Transport Scotland and Dumfries & Galloway Council Roads Department.
Section 13: Forestry	Turbine layout, infrastructure design	Design	The layout design of the wind farm has been an important part of the EIA process and is a stage where a notable contribution can be made to the mitigation of forestry felling within the local area. Following the revised layout for the proposed wind farm in the AI submission, the amount of key-hole felling has been further reduced, as now there are 2 less turbines within the forestry, access tracks within the forestry have reduced, 3 borrow pits have been relocated outwith the forestry, 1 borrow pit has been removed which was previously in the forestry and 1 temporary construction compound has been removed. Also, existing open ground and wind breaks within the commercial forestry have been used for access track routes and locations for some of the infrastructure, which has further reduced the amount of felling required. The design process and mitigation by design, is further detailed in Section 3: Site Selection, Design and Evolution of the AI and in Section 13: Forestry of the AI. Overall, 39 of the 60 turbines are located within the forestry onsite and the key-hole felling requirements have been positively reduced.
	Ecology	Pre-construction, Construction and Operation	A variety of mitigation measures to protect the onsite ecology are detailed below: - A distance of least 50m will be maintained from the blade tip to the forestry edge in order to protect bats; - When the turbines are operational, feathering of the turbine blades at low wind speeds will be implemented, for the turbines where bats are present. - Tree and shrub planting to be done within the cleuchs and along watercourses, and away from the wind farm area in order to provide additional foraging from bats away from the turbines;

			- Ensure strict pollution prevention measures and good practice are followed to ensure watercourses are not polluted during felling operations in order to protect otters and fish. This will also include water monitoring; - Enhancement measures to be implemented such as planting up riparian corridors to increase cover/refuge along with attenuation ponds which can be left on site for amphibians, which are a food source for otters; - Pre-construction checks for badgers to check existing and any newly excavated setts. Implementation of a 30m buffer zone around any setts to avoid any potential disturbance to badgers, and avoidance of disturbance during the breeding season; and - Pre-construction checks for red squirrels to check for dreys. To reduce the impact on breeding squirrels, felling will take place outwith the breeding season. Also, no broad-leaved tree planting to take place within the forest as this may attract grey squirrels. A Habitat Management and Enhancement Plan will be implemented to ensure the effective implementation, management and monitoring of various habitat management measures, and habitat enhancement measures. These will all be overseen and monitored by the Habitat Management Group. The revised Outline HMEP (OHMEP) submitted with this AI, is in response to consultee requests for updates to the original outline OHMEP, providing an indicative outline of the management and enhancement proposals. However, this will require further detailed discussion and agreement with relevant consultees following planning consent and pre-construction.
	Ornithology	Pre-construction, Construction and Operation	A variety of mitigation measures to protect the ornithology of the site are detailed below: - Pre-construction checks will identify any goshawk nests and no work will take place within 1km of the nest during the breeding season; - Following the completion of construction, post-construction monitoring of the ornithology of the site will be undertaken for Years 1, 2, 3, 5, 10, 15 and 20; - A species protection plan for Common Crossbill will be produced as requested by NatureScot; and - In order to minimise and avoid disturbance to nesting and breeding birds, trees will be felled out with the breeding season.
	Hydrology	Construction and Operation	A variety of mitigation measures to reduce and avoid hydrology related impacts are detailed below: - A CEMP will be produced, which also facilitates the use of best practice, to prevent or minimise potential effects on the surface and groundwater environment during the forestry felling works. This will also incorporate drainage requirements, a water monitoring plan, contingency plans in case of incidents and training for all construction personnel; - Appropriate design and installation of watercourse crossings, subject to approval by SEPA; and - Drainage systems and sediment management measures to be designed which wholly mitigate effects on the hydrological environment, with regular inspection and maintenance carried out, particularly after prolonged heavy rainfall - Pollution prevention, handling and movement of forestry waste.
	Landscape and Visual	Construction	Commercial forestry onsite will be keyhole felled rather than wholesale clear felled, which reduces the visual impact of forestry felling.
	Compensatory Planting	Operation	In accordance with the Scottish Government Policy on Control of Woodland Removal, compensatory planting will be undertaken to compensate for the loss of trees which are felled in order to facilitate the construction and operation of the Proposed Development. Compensatory planting will take place offsite and will be equivalent to 175ha which is the same as the quantity of trees to be felled. Compensatory planting will be applied for in a separate application which will include a detailed restocking plan. Furthermore, a proposed suitably worded condition that meets the requirements of the consultation response from Scottish Forestry is set out below: *1. There shall be no Commencement of Development until a woodland planting scheme to compensate for the removal of 175 hectares of existing woodland ("the Replanting Scheme") has been submitted to and approved in writing by the relevant Planning Authority.* *2. The Replanting Scheme must comply with the requirements set out in the UK Forestry Standard (Forestry Commissions, 2011. ISBN 978-0-85538-830-0) and the guidelines to which it refers. The Replanting Scheme submitted for approval must include:* *a) details of the location of the area to be planted;* *b) details of landowners and occupiers of the land to be planted;* *c) the nature, design and specification of the proposed woodland to be planted;* *d) details of all necessary consents for the Replanting Scheme and timescales within which each shall be obtained;* *e) the phasing and associated timescales for implementing the Replanting Scheme;* *f) proposals for the maintenance and establishment of the Replanting Scheme, including; annual checks; replacement planting; fencing; ground preparation; and drainage; and* *g) proposals for reporting to the Scottish Ministers on compliance with timescales for obtaining the necessary consents and thereafter implementation of the Replanting Scheme.*

			3. The approved Replanting Scheme shall thereafter be implemented in full and in accordance with the phasing and timescales set out therein, unless otherwise agreed in writing by the relevant Planning Authority.
	Forestry Management	Construction	All felling operations will be carried out in accordance with SEPA Land Use Planning System guidance note (LUPSGU27 version 1 and Management of Forestry Waste, LUPS-GU4 and WST-G-027 version 3) and Waste Regulations (Scotland) 2017.

Section 14: Other Considerations	Aviation lighting	Operation	All of the wind turbines in the proposed Scoop Hill Wind Farm will have tip heights exceeding 150 metres above ground level and will therefore trigger the ANO Article 222 requirement for visible spectrum lighting. In order to meet the requirements of users of the night low level airspace while reducing the night-time visual impact of such aviation lighting on observers on the ground, the applicant has sought and obtained CAA approval to install a reduced aviation lighting scheme on the turbines other than in accordance with the ANO, as provided in ANO Article 222(7).
			
			The proposed Scoop Hill lighting scheme which has been approved by the CAA and the MoD, is as follows:
			• 17 of the 60 turbines – marking the corners and perimeter of the wind farm – will be lit with 2000 candela steady red lights and infra-red lights on the nacelle.
			  ○ A second 2000 candela light will be fitted to those same 17 turbines, to act as an alternate, in the event of failure of the main light.
			  ○ These lights are capable of being dimmed to 10% of peak intensity when the lowest visibility as measured at suitable points around the wind farm by visibility measuring devices exceeds 5km.
			• All other perimeter turbines (17 in total) will be lit with infra-red lights only.
			• 26 turbines in the interior of the wind farm will not be fitted with any lights.
			• Intermediate level 32 candela lights at the mid-tower position will not be installed on any of the turbines.
			
			The reduced lighting scheme will bring a level of mitigation that has been successfully achieved at other wind farm developments in Scotland and therefore the applicant suggest the implementation of the following condition:
			
			(1) Aviation lighting shall be installed in accordance with the aviation lighting scheme described in the document "Scoop Hill Community Wind Farm, Dumfries and Galloway: Proposal for Reduced Lighting Scheme" (Report No. 20/869A/CWP/7) dated November 2022 as approved by the CAA on 21 December 2022 (the Aviation Lighting Scheme).
			
			(2) The Aviation Lighting Scheme shall be fully implemented throughout the lifetime of the development, unless any change to the Aviation Lighting Scheme is approved in writing by the Scottish Ministers.

	Eskdalemuir Seismological Recording Station	Operation	The Applicant is working closely with the MoD and informed seismologists to better understand the potential impact of the proposed development to the Eskdalemuir Seismological Recording Station. The Applicant will continue to consult with the MoD to mitigate the potential impact of Scoop Hill Community Wind Farm while not compromising the detection capabilities of the seismic array. In the context of that consultation process, the Applicant considers that a suspensive condition is an appropriate way to progress the application, which is set out below: *(1) No later than [12] months from the date of issue of this consent the Developer shall submit for the approval in writing of the Planning Authority in consultation with the Ministry of Defence a scheme for the further investigation of the effects of the Development on the detection capabilities of the Eskdalemuir Seismological Array (the Scheme). Prior to seeking confirmation from the Planning Authority in terms of part (2) of this condition, the Developer shall submit a report of the results of the implementation of the approved Scheme to the Planning Authorities and the Ministry of Defence.* *(2) No part of any turbine shall be erected unless the Planning Authority in consultation with the Ministry of Defence have confirmed in writing that the Planning Authority is satisfied that the predicted seismic ground vibration from the Development would not result in an exceedance of 0.336 nanometres of seismic ground displacement when measured at the Eskdalemuir Seismological Array (or such alternative maximum threshold of seismic ground vibration as may be established at the time of confirmation) such that the Development (individually or cumulatively) would have an unacceptable adverse effect on the detection capabilities of the Eskdalemuir Seismological Array.* *This is to ensure that seismic ground vibrations generated by the wind turbines in the Development do not unacceptably affect the detection capabilities of the Eskdalemuir Seismological Array.*
	NATS	Operation	With regards to NATS En Route Plc (NERL), a new advanced 3D Primary Surveillance Radar system has been installed at Lowther Hill. The applicant remains in discussions with NATS in relation to concerns on the impacts of the proposed development on Lowther Hill radar. However, with the installation of the new advanced 3D primary Surveillance Radar System, the applicant is confident in reaching a mitigation solution with NATS.
	Shadow Flicker	Operation	Based on the assessment of effects, the impacts of shadow flicker is considered to be insignificant for all of the assessed properties, therefore no mitigation will be required. However, if shadow flicker was deemed to be causing a problem, then mitigation can be implemented through turbine slow-down periods when all factors and conditions are in place which could cause shadow flicker to arise, or the implementation of screening.
	Ice Throw	Operation	In order to reduce the risk of ice throw and the risk of damage occurring if it did, the following measures will be adopted: - Turbines located away from occupied buildings, roads and other public areas so the risk of damage or injury is reduced e.g. minimum of tip height +10%;

			- Turbines are equipped with ice detection systems which work on a power curve analysis method. When certain criteria are identified, the turbine can be shut down thus limiting the risk of ice throw; and - Once the ice has thawed, visual inspections will be undertaken prior to restarting the turbine and the movement of the blades.
	Public Rights of Way	Construction & Operation	Mitigation by design has been a key part of the mitigation for Public Rights of Way and Core Paths, as the layout has been designed so that the majority of the proposed turbines are set back from the paths, by a minimum separation distance which is equivalent to the blade tip height of the turbines. During construction, it may be necessary to restrict access to certain areas of the development to ensure the health and safety of the public whilst civil engineering works are ongoing. During Construction and Operation, appropriate health and safety signage will be erected within the development area to ensure health and safety requirements are met at all times, and those using the rights of way are fully aware of the current risks and construction/operation works. Public Rights of Way and Core Paths within the site will also be regularly maintained and checked to ensure they remain accessible and suitable for use during the operational life of the wind farm, with interpretation boards and signposts installed, thus promoting recreational access through the site.