15 Summary of Mitigation

This chapter summarises the mitigation measures that have been proposed to offset the potential impacts of the Proposed Development. These mitigations have been proposed to reduce the level of impact to not significant. Alongside each mitigation measure identified, the proposed mechanism by which it will be adopted, implemented or enforced has been provided as well as the period by and /or timing which the mitigation measure will be undertaken.

ES Chapter	Potential Effect	Mitigation Proposed	Means of Implementation and timing
Chapter 3 Design Evolution & Alternatives	Impact on telecommunications link	RES would agree a scheme of mitigation with the planning authority, the link operator and provider, to be implemented prior to erection of turbines, and funded by the wind farm operator. Proposed condition wording: No turbine shall be erected until a scheme for the mitigation of impacts on telecommunication links within the site (operated by SONI) has been submitted to and agreed in writing with the Council, and implemented in full at the cost of the developer. Reason: To protect existing telecommunication links within the site	By condition.
Chapter 4 Landscape and Visual Impact	Landscape and visual effects	The exterior surfaces of the turbines will be painted in a recessive, non-reflective light grey colour to minimise their visual prominence against the sky in most weather conditions.	By condition.
		Ancillary facilities, such as the control building, substation and energy storage compounds, have been designed in a manner that is sensitive to the immediate landscape character with regards to location, scale, colour, and choice of materials.	By condition. A Construction & Environmental Management Plan (CEMP) will be agreed with the Planning Authority prior to construction and implemented during construction.
Chapter 5 Archaeology and Cultural Heritage	Direct impacts upon two heritage assets are predicted:	A programme of recording for both HA8 and HA13 is undertaken prior to construction commencing	By condition. Programme of Recording to be agreed with the Planning Authority prior to construction and implemented during construction
		Sections of the bank of HA13 are recorded as part of a watching brief of ground breaking works carried out in this area during construction.	

	▪ HA8, an area of ridge and furrow ▪ HA12, an area of ridge and furrow ▪ HA13, an enclosure	A programme of recording for HA12 prior to construction commencing and a watching brief on ground breaking works taking place on the access track leading to and within the vicinity of HA12.	
	Direct construction effects upon previously unknown cultural heritage assets	A programme of archaeological works will be implemented to include potential impacts upon or beneath peat	By Condition. To be outlined in a written scheme of investigation and agreed with the Planning Authority prior to construction and implemented during construction.
	Accidental direct impacts upon other heritage assets within the ISA may arise should activities such as, but not limited to, ancillary drainage works, and uncontrolled plant movement take place in the vicinity of these heritage assets.	The known heritage assets within the Inner Study Area (HA1 to HA8, HA12 to HA14) will be demarcated on order to highlight their presence. This will be achieved through appropriate survey, demarcation/ fencing and signage.	To be agreed prior to construction works commencing.
Chapter 6 Vegetation and Peatland	General	Measures required to address ecological concerns described in this ES during the construction phase will be incorporated within a Construction and Environmental Management Plan), which will be submitted to and	By Condition. A CEMP will be agreed with the Planning Authority prior to

		agreed with the Planning Authority at the pre-construction stage, including: • Consideration will be given to the provenance of fill materials for roads, in terms of the similarity of their physicochemical properties (particularly pH) to the present substrate. • The contractor will prepare a CEMP prior to construction activities to provide a method statement for working practices that will include measures, among others, to prevent adverse impacts on rivers and other watercourses. Please also refer to the SUDS design Statement in Technical Appendix 10. • A "no access" buffer will be implemented along sensitive watercourses to prevent damage to banks and to prevent disturbance of riparian habitats, apart from the narrow corridor required during construction. • Access of all machinery and personnel will be limited to the working area corridor. • Site compounds and stores will be sited away from any features of conservation interest, including watercourses. Any of these features in close proximity to the works or to compounds will be fenced to prevent damage by plant or stored materials. • Dust suppression filters and appropriate wetting of running and work surfaces will be used to prevent masking of vegetation outside construction corridors, where appropriate. • Appropriate speed limits will be imposed to reduce the potential for dust production.	construction and implemented during construction.
	Loss of Wet Heath / degraded Blanket Bog	Programme of heathland restoration and enhancement according to the Outline Habitat Management Plan (Technical Appendix 6.2 and Figure 6.6).	By Condition. A final HMP will be agreed with the Planning Authority prior to construction /DAERA and implemented during construction and operation.

Chapter 7 Terrestrial Fauna	Potential collision of bats with turbine blades	A Bat Mitigation Monitoring Plan (BMMP) will be implemented and will consist of post-construction monitoring in the form of casualty searches, undertaken during years 1-3 post construction. These will be extended for a further two seasons in the event that activity levels (as recorded during the static monitoring) are moderate/high (>50 bat passes at the turbine during a single night) or if a bat carcass is found.	By Condition. A BMMP will be agreed with DAERA / Planning Authority prior to turbine erection and implemented during operation of the wind farm.
	Temporary disturbance to Common Lizard during construction	Implementation of species-specific mitigation to off-set potential significant effects including: ▪ Phased mowing within the construction corridor ▪ Clearance of stones, tree stumps, logs, brash, rocks or piles of similar debris by hand. Although this is only required in a few areas where the proposed site tracks traverse low stone walls. This work will not take place during the hibernation period for common lizard (i.e., mid-October to mid-March). ▪ Phased clearance of tall vegetation using a strimmer or brush cutter with all cuttings raked and removed the same day. ▪ Maintenance of remaining vegetation at a height of 30mm through regular mowing or strimming to discourage common lizards from returning. Ground clearance of any remaining low vegetation (if required) and any ground works will only be undertaken following the works described above. ▪ As an additional precaution the ECoW will be present from the commencement of clearance/construction with a watching brief to ensure that no common lizards remain within the construction corridor and remain in situ until the area is cleared to ensure no species or habitat conflicts emerge affecting damage to the local lizard population. ▪ If any common lizards are found during excavation works, all works within the affected area will cease until the ECoW has safely removed them (under licence) from the construction corridor.	By condition. A CEMP will be agreed with DAERA / Planning Authority prior to construction and implemented during construction.

		▪ Should it prove necessary during site supervision a protective lizard barrier fence will be installed along both sides of the construction corridor in order to prevent common lizards from entering the works area.	
		The Outline Habitat Management Plan (Technical Appendix 6.2 and Figure 6.6) includes compensation and enhancement measures for lizard achieved by a significant reduction in grazing pressure within the habitat management area for the lifetime of the Proposed Development.	By condition. A final HMEP to be agreed with the planning authority prior to construction and implemented during construction and operation.
	Temporary disturbance to badger during construction	A pre-construction badger survey will be completed.	By condition. A CEMP will be agreed with the Planning Authority prior to construction and implemented during construction.
Chapter 8 Ornithology	Potential displacement of snipe	Programme of long term habitat management (during the life of the Proposed Development) for snipe to compensate for potential displacement of breeding pairs as described in the Outline Habitat Management Plan (Technical Appendix 6.2 and Figure 6.6).	By condition. Final HMP to be agreed with the Planning Authority prior to construction and implemented during construction.
	Impacts on breeding birds during construction	No development activity will take place on the Site between 1 March and 31 August in any year until an Ornithology Mitigation Strategy (OMS) has been prepared by a suitably experienced ornithologist and approved by the Planning Authority.	By condition. OMS to be agreed with the Planning Authority prior to construction and implemented during construction.
	Monitor the effects of the Proposed Development and	No development activity will take place until an Ornithology Management and Monitoring Plan (OMMP) has been prepared by a suitably experienced ornithologist and approved by the Planning Authority.	By condition. OMMP to be agreed with the Planning Authority prior to

	the HMP on local bird communities		construction and implemented during construction and operation.
Chapter 9: Fisheries	Timing of Works	All works at stream crossings will adhere to the measures outlined in the Guidance for Pollution Prevention: Works and maintenance in or near water: GPP 5 (Environment Agency, 2018). It is also recommended that to minimise the risk of suspended sediment entrainment in surface water run-off, the site drainage system should only be constructed during periods of low rainfall and therefore low run-off rates.	During construction
	Effects of construction on surface water	A surface water management plan (SWMP) will be developed using the principles of Sustainable Drainage, based on the on-site retention of flows and use of buffers, swales, check-dams and other silt removal techniques. Implementation of the management plan will prevent any adverse effects on the ecology of the principal receiving watercourses during the construction phase of the project. An outline SWMP is contained in Technical Appendix 10.	By condition. SWMP to be included in CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction
	Effects of development on surface water	Implementation of a water quality monitoring programme to examine the effects of the infrastructure construction works on surface water quality. It is recommended that the monitoring programme be continued through the operation and decommissioning phases of the Proposed Development.	By condition. WQMP to be included in CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction, operation and decommissioning
	Release of pollutants	A Pollution Prevention Plan will be included as part of the Construction Environmental management Plan (CEMP) for the Proposed Development, to be agreed with the local planning authority at the pre-construction stage. This will incorporate a contingency plan setting out the procedure to be followed in the event of a significant spillage occurring.	By condition. PPP to be included in CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction, operation and decommissioning.
	Loss of habitat at stream crossings.	The installation of a short bottomless (clear-span) culvert on the track crossing over the Aghanageeragh River, north west of T7, to ensure no loss of the habitat of fish or sensitive benthic invertebrates, ensure free	By condition

	Obstruction of fish passage	movement of any fish present in the channel and prevent any change in channel morphology or flow alteration due to in-stream structures. Typical design drawings for a bottomless culvert and closed culvert have been provided as part of the planning application and are included as part of the Drainage Management Drawings within Technical Appendix 10.1: Surface Water Management Plan.	
Chapter 10: Geology & Water Environment	Site Drainage Management & SuDS Design	The Proposed Development will adopt a surface water management plan / site drainage design using the principles of Sustainable Drainage, promoting the principles of onsite retention of flows and use of buffers and other silt removal techniques. See Technical Appendix 10.1: Surface Water Management Plan. All drainage related mitigation measures proposed will be encompassed by a robust and proven Sustainable Drainage System (SuDS) design which will be used to control drainage and silt management on the site. Onsite drainage design will minimise modification and disruption of the existing natural hydrology by: • Maintaining existing overland flow routes and channels. Existing natural flow paths lateral to access roads will be maintained through the use of piped crossings under road alignments at natural depressions and at regular intermediate intervals. The spacing of cross drains will be specified at detailed design stage; • Avoiding transporting rainfall runoff in long linear drainage swales by providing regular channel "breakouts", whereby water is encouraged to flow overland, thus maintaining existing natural hydrological patterns; • Reducing surface water flow rates and volumes by attenuating runoff from tracks and hard standings "at source" by providing check-dams in swales, whereby the flow velocity and rate of discharge is artificially reduced to mimic natural properties; • Providing settlement ponds at turbine hard standing areas and other main surface water discharge locations, where runoff from	By condition. To be included in the CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction.

		significant new impermeable areas is treated and attenuated before being released overland; • All swales, crossings and other hydraulic features will be engineered to ensure that dimensions are suitable to convey predicted flows and so prevent build-up of surface water and / or flooding. Drainage design will reduce chemical, silt and other suspended pollutant transport by providing a "treatment train" of two to three stages of pollutant removal to all surface water runoff, nominally by: • Ensuring that drainage swales are designed to convey flows at a low velocity by using a wide, flat bottomed drain; • Providing settlement and filtration features in all linear drainage swales (check dams, filtration dams) to reduce flow velocity and encourage settlement; • Encouraging appropriate vegetation growth in the base of all linear drainage to provide additional filtration to flows; • Providing settlement ponds at turbine hard standing areas and other key discharge locations in order to provide treatment to contaminated runoff prior to discharge; • Discharging surface water runoff over undisturbed vegetated ground, hence allowing any remaining silts and other pollutants to drop out of flows before entering the watercourse (having the effect of polishing the runoff); • Preventing the discharge of surface water runoff flows directly to existing watercourses or drainage. All discharges shall seek to be via SuDS and buffer zones which will act as a filter strip, allowing deposition of suspended solids and other pollutants; • Providing settlement features in water channels downstream of areas of peat infilling and ditch blocking area proposed as part of habitat management and enhancement planning. Refer to Appendix 6.2 for full Habitat Management Plan (HMP) measures.	

	Watercourse crossings	Design measures: Culverts will be designed to accommodate track crossings and minimise length of affected channel in order to comply with Revised PPS15 policy FLD4. Hydraulic design of crossings will be undertaken as per the guidance and requirements provided in CIRIA C689 "Culvert Design and Operation Guide" (or other standard as may be required by DfI Rivers in post-consent consultation), with primary parameters likely to include: • Width of the culvert will be greater than the width of the active drainage channel; • Alignment of the culvert will suit the alignment of the drainage channel, i.e. preserve the existing direction of flow; • The slope of the culvert will not exceed the slope of the bed of the existing drainage channel. • Detailed design of crossings will assume a hydraulic capacity requirement of 1% Annual Equivalent Probability flow including factor for climate change as required by DfI Rivers Technical Flood Risk Guidance in relation to Allowances for Climate Change in Northern Ireland as a conservative measure. Detailed hydraulic design of culverts and similar structures post permission is normal and accepted practice for wind farms in Northern Ireland. • Fisheries shall be protected by adopting the guidance stated in Guidelines for Fisheries Protection during Development Works as published by Loughs Agency. Consultation and approval will be sought from all relevant parties as required by the DAERA Surface Waters Alteration Handbook (November 2017), including and DfI Rivers in particular, at the pre-construction detailed design stage for all works in and affecting watercourses and drains, as per the requirements of Schedule 6 of the Drainage (Northern Ireland) Order 1973 and subsequent amendments. The resultant	Through CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction. Operational phase. Decommissioning Method Statement Schedule 6 consents will be sought for watercourse crossing design.

		structures comprise clear span crossings of the significant watercourses, which have been demonstrated to ensure that the effect on flood conveyance is satisfactorily managed and would have no significant adverse effect on flood levels and flood extent within the Site and no adverse effect elsewhere. Preliminary DfI Rivers approval has been sought for the significant watercourse crossings.	
	Water Quality Monitoring	A water quality monitoring program will be implemented to monitor effects on the surface water quality regime during the infrastructure construction, operational and decommissioning phases of the proposed development, in order to; • Demonstrate that the mitigation measures and surface water management is performing as designed; • Provide validation that the in-place mitigation measures are not having an adverse effect upon the environment; • Indicate the need for additional mitigation measures to prevent, reduce or remove any effects on the water environment, such as additional temporary settlement or filtration structures or short-term flocculant dosing to suit observed site conditions. It is intended that the water monitoring extent, duration and frequency will be agreed with the planning authority or the relevant regulating body (nominally DAERA WMU) post consent and will nominally consist of physicochemical and biological monitoring. The extent, duration and frequency of the monitoring will be proportionate to the level of activity during each phase of the Proposed Development and the associated perceived risks.	By condition. To be included in CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction.
	Pollution Prevention	A detailed Pollution Prevention Plan (PPP) will be implemented and monitored by the site manager as part of the CEMP, to be submitted post-consent following detailed site investigations and agreed with the	

		local planning authority. Although this will be of particular importance during construction, it will apply to potentially polluting activities during all phases of the Proposed Development. The detailed PPP will be produced following consultation and agreement with DAERA, and all appropriate personnel working on the Proposed Development will be trained in its use. As a minimum, the PPP will comply with Guidance for Pollution Prevention (GPP) and Pollution Prevention Guidelines (in particular GPP 21: Pollution Incident Response Planning) and best practice as advocated by CIRIA. The PPP will identify site-specific measures and incorporate a Pollution Incident Plan, which will include emergency contact details, details of spill kits on the Proposed Development and instructions on actions in case of spillage / emergency.	
	Storage	All equipment, materials and chemicals on the Proposed Development will be stored away from any watercourse (i.e. outwith previously stated buffer zones). Chemical, fuel and oil stores will be sited on impervious bases in accordance with GPP2 and within a secured bund of 110% of the storage capacity, within the temporary storage compound.	
	Vehicles and Refuelling	Standing machinery will have drip trays placed underneath to prevent oil and fuel leaks causing pollution. Refuelling of vehicles and machinery will be carried out on an impermeable surface in designated areas, well away from any watercourse or drainage ditches (i.e. outwith previously stated buffer zones) and will adhere to best practice as detailed in PPG 7.	
	Maintenance	Onsite maintenance to construction plant will be avoided in all practicable instances, unless vehicles have broken down necessitating maintenance at the point of breakdown. Suitable measures in accordance with a Pollution Prevention Plan (PPP) will be put in place prior to commencement of maintenance in this instance.	
	Cement and concrete batching	Preference shall be given to construction techniques that do not require use of cementitious materials where suitable practicable alternatives exist. When concrete / cement is used, concrete batching will not be	

		permitted on site. Wet concrete operations will not be carried out within watercourses or adjacent to watercourses. Measures to prevent discharge of alkaline wastewaters or contaminated storm water to watercourses will be outlined in a detailed PPP for the Proposed Development to be approved by the planning authority before commencement of works. Wastewater spillage will be minimised by using settling tanks and recycling water.	
	Mess and welfare facilities	Mess and welfare facilities will be required during construction and decommissioning and will be located at the construction compound. Foul effluent disposal shall be via chemical facilities with periodic tankered removal by a licensed waste haulier for licensed offsite disposal (i.e. there shall be no emission on site).	
	Construction in the vicinity of Watercourses	The following procedures apply to the general construction activities either within the watercourses or in defined watercourse buffer zones: • Due consideration will be given to the prevailing ground and weather conditions when programming the execution of the works in order to ensure that in-channel works are undertaken during periods of predicted low flow and low rainfall in order to minimise contact with water. • Ensure that roadside drains do not discharge directly into watercourses, but rather through a riparian buffer area of intact vegetation as denoted on design drawings.	
	Construction of Watercourses	Construction of watercourse crossings will be programmed to coincide with periods of predicted low flow in the affected channel (determined by rainfall and would generally coincide with summer months). Construction will be strictly as per the design for each identified watercourse crossing and will fully implement all SuDS and additional mitigating measures proposed at the detailed design stage. For purposes of outline design, the proposed mitigation will include:	

		• Installation of silt fences parallel to the watercourse channel in the vicinity of the proposed crossing; • Installation of small cut-off drains to prevent natural surface runoff entering area of construction activity; • Installation of filtration or other silt entraining features within the watercourse channel immediately downstream of the works location; • Use of and over pumping to allow a dry working environment where deemed appropriate.	
	Temporary SuDs	Temporary drainage and silt management features (SuDS) will be constructed prior to earthworks (including preliminary or enabling works) proceeding to construct any linear works (tracks / hardstanding areas / cable routes), turbine bases, and other infrastructure. Drainage will be provided to temporary works and reinstated to suit the final footprint of the completed development. Temporary drainage measures in particular will be employed in enabling works to facilitate widening of existing tracks and diversion of minor watercourses where specifically proposed. Temporary measures may include: • Temporary silt fences erected in areas where risk of pollution to watercourses has been identified e.g. watercourse crossing locations and areas where tracks or other infrastructure lie within watercourse buffer zones. • Placing temporary filtration silt fences within drainage channels where siltation is observed. • Installing temporary constructed settlement features such as sumps or settlement ponds / lagoons where required. • Upslope cut-off drainage channels approximately parallel to the proposed track alignment installed in advance of any excavated cuttings for the track or turbine hardstanding areas.	

		• Watercourses, drains, natural flow paths and cut-off drain outlet locations should be identified and charted, in order to ensure that piped crossings can be installed in advance of or adjacent to the track construction. • Settlement ponds should be constructed in advance of commencing excavations for foundations and at any other locations identified as required at detailed design stage. • Trackside drainage swales should be installed in parallel with track construction. Note that this may require that drainage swales are reformed on an ongoing basis as temporary track alignments are modified to their eventual finished design level. Suitable prevention measures should be in place at all times to prevent the conveyance of silts to receiving watercourses.	
	Electrical Cable Laying	Due consideration will be given to the prevailing ground conditions and season when programming the execution of cable trench excavations in order to ensure works are undertaken during periods with low rainfall and elevated shallow groundwater levels in order to reduce the likelihood of runoff entering the excavations. Excavation of cable trenches will be carried out over short distances, with frequent backfilling of trenches to minimise opportunity for the ingress of water into open trenches, temporary silt traps will be provided in longer trench runs and on steeper slopes and spoil will be stored in line with a spoil management plan, which will be produced as part of the CEMP at the pre-construction stage.	
	Excavations and Spoil Management	Soil and subsoil excavation and movement will be undertaken in accordance with best practice guidelines such as Good Practice Guide for Handling Soils (MAFF, 2000) in order to minimise potential for silt laden runoff from spoil and excavations. Areas of stockpiled spoil including stored peat: • will not be permitted within previously identified watercourse buffer zones; and • will not be permitted to obstruct the flow of overland surface water with specific drainage to spoil mounds to be provided.	By condition. Peat Slide Risk Assessment and Peat Management Plan to be incorporated into CEMP and agreed with the planning authority prior to construction.

		Material produced from excavations on the Site will be reused where reasonably practicable in the reinstatement of the site. Excavated materials will be separated into rock material, subsoil, reusable peat and vegetated sod material and will be stored in the designated temporary stockpile zones, under the supervision of a geotechnical expert. These materials will be reused where possible to re-grade slopes, and to re-vegetate and stabilise the sides of access tracks and hard standing areas. Spoil drainage will be designed on a bespoke basis for spoil storage areas to allow controlled dewatering and prevent washout of suspended solids to the receiving water environment. As part of the detailed CEMP a spoil management strategy will be developed by the appointed competent contractor for the development. Outline designs for drainage arrangements for temporary spoil areas are shown on the Drainage Management Drawings within Appendix 10.1: Surface Water Management Plan. The mitigation identified in the Peat Slide Risk Assessment (Technical Appendix 10.3) and Peat Management Plan (Technical Appendix 10.4) will be adhered to.	

	Dewatering of excavations	The majority of the turbine base foundations will be on bedrock or other hard strata above bedrock (to be confirmed by detailed site investigation prior to detailed design); therefore, deep excavations within bedrock and the associated bedrock aquifer are not anticipated and dewatering below the bedrock aquifer groundwater table is therefore not anticipated. Shallow groundwater (e.g. in areas of glacial sand and gravel) or rainfall runoff collected in excavations will be discharged via settlement ponds or filter strips prior to entry to the receiving water environment. Any settlement lagoons or filter strips associated with dewatering will be regularly inspected, particularly after periods of heavy rainfall and prior to periods of forecast heavy rainfall. Maintenance (to clear blockages or remove silt) will be carried out in periods of dry weather where practicable. Maintenance requirements are further considered in Appendix 10.1: Surface Water Management Plan.	By condition To be included in CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction.
	Dust Management	Loose track material generated during the use of access tracks and the construction compound will be prevented from reaching watercourses by maintenance to surface water drainage systems installed at aggregate based hard standing areas. In dry weather dust suppression methods such as by dust suppression bowser will be employed.	
	Borrow pits	For the avoidance of doubt, no borrow pits are proposed at the Proposed Development, therefore associated pollution risks associated with rock extraction activities are not a consideration.	
	BESS	A fire management response plan will be prepared in conjunction with the battery supplier and with the local Fire Service prior to construction. This will outline containment measures and chemical fire suppressant methods which will be implemented to mitigate risk of potential contamination to land or water environment. In the event of a fire all wastes will be dealt with appropriately through the procedures agreed within the site-specific Fire Management Plan to be prepared post-consent.	Fire Management Response Plan, to be agreed with the local fire service pre-construction.

	Operational Phase	Ensure best practice is adhered to on the Site and avoid pollution release to watercourses by incorporating DAERA Pollution Prevention Guidance notes into management policy. In the event that permanent welfare facilities are installed as part of control building / substation facilities, foul effluent will be disposed of through the use of sealed cesspools or chemical facilities with periodic tankered removal by a licensed waste haulier for licensed offsite disposal (i.e. there shall be no emission on the site). Cyclical maintenance of permanent SuDS drainage features installed during the construction phase, including unblocking of drains, maintenance of access road and other hard standing surfaces, and removal of silt build-up from settlement features. An outline maintenance programme is included in Appendix 109.1: Surface Water Management Plan.	Outline maintenance programme included in Technical Appendix 10.1
Chapter 11: Acoustic Assessment	Operational noise	If planning permission is granted for the Proposed Development, planning conditions can be proposed to provide a degree of protection to nearby residents in the form of limits relating to noise level and tonality. Technical Appendix 11.8 contains a set of conditions that RES considers appropriate.	By condition. Technical Appendix 11.8 contains a set of conditions that RES considers appropriate.
	Potential for noise to be created during general construction activities and by construction traffic	Due regard to practicality and cost as per the concept of 'best practicable means' as defined in Pollution Control and Local Government (NI) Order 1978. A range of noise mitigation measures could be implemented where appropriate: • Consideration would be given to noise emissions when selecting plant and equipment to be used on site; • All equipment should be maintained in good working order and fitted with the appropriate silencers, mufflers or acoustic covers where applicable; • Stationary noise sources would be sited as far away as reasonably possible from residential properties; and	Through CEMP, which will be agreed with the Planning Authority prior to construction and implemented during construction

		• The movement of vehicles to and from the site would be controlled and employees instructed to ensure compliance with the noise control measures adopted.	
		Site operations would be limited to 0700-1900 Monday to Saturday except during turbine erection and commissioning or during periods of emergency work.	By condition
Chapter 12: Traffic & Transport	Impact on other road users	A Traffic Management Plan (TMP) will be prepared by the Applicant in accordance with the requirements of DfI, the local PSNI, and if required, any other relevant stakeholders. Features of the TMP will include: • Details of the access route, conformation of any points along the access route that require street furniture removal, details of traffic numbers, delivery timings, and signage and escort requirements • A delivery schedule for normal and abnormal loads to minimise disruption as far as reasonably practicable • Details of how any movements will comply with legislation regarding the movement of abnormal loads e.g. notice procedures and notice periods • Details on the use of escorts where required. Where long vehicles and abnormal loads would have to use the wrong side of the carriageway or need to swing into the path of oncoming vehicles a lead warning vehicle would be used. One escort vehicle would drive ahead and pull oncoming traffic into identified passing places. An escort vehicle would travel directly in front of the convoy and pull over any oncoming traffic that comes onto the road after the first escort vehicle has passed. A further convoy escort vehicle would follow the convoy • Information about marking of vehicles as long/abnormal loads • Information will be given on how warning signs will be used. These will be used to advise other road users of 'Caution Slow Plant Turning Ahead' and will be placed at intervals from both	By condition. Through TMP, which will be submitted to and agreed with the planning authority and DfI Roads prior to the commencement of development

		directions along the main road approaching the site entrance during the construction phase. The TMP will also detail additional measures to ensure impacts from traffic movements are minimised where possible, for example provision of road sweepers and/or wheel wash facilities. • If required, the wheel wash facilities will include a waterless drive over wheel wash for lorries. This will be provided at the site entrance to prevent mud and dust being brought out from the Site onto the public highway and anything being brought onto Site from public highway. Although experience has shown the majority of mud is shaken off wheels on site before the vehicle reaches the public road, the site entrance and adjacent public highway will also be monitored and cleaned if necessary. • The TMP will include details about Video Surveying and Road Repairs. A video survey of the pre-construction condition of all public roads will be recorded around the site entrances and access routes (but including the site entrance and access roads), to provide a baseline record of the state of the roads prior to construction work commencing. This will enable any repairs and maintenance work required to the relevant road due to any damage caused by the passing of heavy vehicles associated with the wind farm construction to be identified following the construction phase. The roads will be returned, at minimum, to the baseline condition at the end of the construction phase. Any damage caused by wind farm traffic during the construction period, which would be hazardous to public traffic, will be repaired immediately. These works will be carried out under permits with DfI Roads, as appropriate. • The TMP will include plans for notifying relevant stakeholders in advance of delivery periods, including the emergency services, DfI Roads, local residents, local business, local services and schools. The local community will be informed prior to the commencement of construction and prior to the commencement of turbine deliveries by letter and through local press. The contact details of the Construction Site Manager will be made available as a contact point for enquiries. Local schools on the	

		delivery routes will be contacted to identify school and nursery drop-off and pick up locations and times. Construction deliveries will be scheduled to avoid these busy periods as far as reasonably possible. • If cutting or removal of hedges and trees is required, then this should be done outside the bird breeding season (1st March to 31st August) unless otherwise agreed. If work is to be done during the breeding season, then there should be a survey to establish whether nesting birds are present.	
Chapter 13: Shadow Flicker	Material reduction to residential amenity	In the event of shadow flicker causing a nuisance mitigation measures can be incorporated into the operation of the Proposed Development to reduce the instance of shadow flicker. Mitigation measures include planting tree belts between the affected dwelling and the responsible turbine(s) or installing blinds at the effected property. In the unlikely event that there is extreme nuisance mitigation could include shutting down individual turbines during periods when shadow flicker could theoretically occur.	By condition A shadow flicker mitigation scheme to be agreed with the planning authority prior to erection of turbines.