15. Schedule of Mitigation

15.1 Introduction

15.1.1 Best practice in Environmental Impact Assessment (EIA) recommends the use of a Draft Scheme of Mitigation, which can act as a quick reference for anyone interested in the mitigation measures which the Applicant has committed to implementing and upon which the assessment of residual effects presented within the EIA Report has been based. It will be utilised by the Applicant throughout development of the detailed design, and the appointed contactors will be required to allow for, and ultimately implement, each of the measures in the schedule as a minimum.

15.1.2 **Table 15.1** presents a Schedule of Commitments for the Proposed Development, listed according to the relevant environmental topic area. Individual EIA Report chapters should be referred to for full details of the commitments.

Table 15.1: Schedule of Mitigation

Subject Area	Commitment	Timing
Chapter 2: Proposed Development		
Micrositing	A micrositing allowance of up to 100 m in all directions is being sought in respect of each turbine and its associated infrastructure in order to address any potential difficulties which may arise in the event that pre-construction surveys identify unsuitable ground conditions or environmental constraints that could be avoided by slight relocation.	Construction
Turbines, Turbine Foundations and Crane Hardstandings	Detailed ground investigations will be completed prior to construction. This will inform final foundation and crane hardstanding design.	Pre-Construction
	Detailed construction drawings with final dimensions will be available prior to the commencement of construction once the final turbine model has been selected.	Pre-Construction
	The wind turbines will be of a typical modern, three-blade, horizontal axis design in semi-matt white or light grey with no external advertising or lettering except for statutory notices.	Construction and Operational
Access Tracks	Existing onsite access tracks, where possible, will be retained, re-used and upgraded (where necessary).	Construction
	Borrow pits may be used as a locally sourced option for stone in the construction of access tracks	Construction
	The Applicant will ensure that the vehicles will be routed as agreed with East Ayrshire Council (EAC), Transport Scotland and Police Scotland, to minimise disruption and disturbance to local residents and road users.	Pre-Construction
Watercourse	The final detailed design for all watercourse crossings will be developed in accordance with the requirements of the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR).	Pre-Construction
Drainage Design	A detailed drainage management plan (DMP) design will be developed and submitted to the Scottish Ministers and EAC, in consultation with Scottish Environment Protection Agency (SEPA), for approval prior to construction.	Pre-Construction
Construction Compounds	Prior to commencing construction work, a detailed appraisal of the area will be undertaken, including the applicable ecological checks and trial pits and /or boreholes to confirm the nature of the sub-strata.	Pre-Construction
	The detailed locations, sizes and engineering properties of the construction compounds will be confirmed prior to the start of construction, after the turbine supplier and model have been confirmed.	Pre-Construction
	On completion of construction works, all temporary structures will be removed.	Construction
Substation, Energy Storage & Cabling	Lighting will be kept to a minimum and will be limited to working areas only and will comply with health and safety requirements. Lighting will be down lit and linked to timers and movement sensors so that light pollution is kept to a minimum.	Construction and Operational
	Details of the final design of all components of the substation, energy storage and cabling compound will be agreed with the relevant consultees prior to construction.	Pre-Construction
Borrow Pits	Borrow pits will also be investigated to determine the suitability of stone for use as concrete aggregate, removing the need to import to the batching plant from off site.	Construction
Construction Hours	Normal construction hours will be between 07:00 and 19:00 Monday to Friday and 07:00 and 13:00 on Saturdays and bank holidays. These times have been chosen to minimise disturbance to local residents. It must, however, be noted that out of necessity due to weather conditions and health and safety requirements, some generally quiet activities, for example Abnormal Indivisible Load (AIL) deliveries (which are controlled by Police Scotland) and the lifting of the turbine components, may occur outside the specified hours stated. Any construction outwith these hours will be in line with the noise limits as assessed in **Chapter 12: Noise** and advance warning of any works outwith the agreed working hours will be provided to EAC and local residents.	Construction
Construction Environmental Management Plan (CEMP)	The Contractor will produce and adhere to a CEMP. This shall be developed in detail in consultation with the Scottish Ministers, NatureScot, SEPA, Historic Environment Scotland (HES) and EAC. The Contractor shall amend and update the CEMP as required throughout the construction period.	Pre-Construction
	The CEMP shall describe how the Applicant will ensure suitable management of the following environmental issues during construction of the Proposed Development: • noise and vibration; • dust and air pollution; • surface and ground water; • ecology (including protection of habitats and species); • cultural heritage; • waste (construction and domestic); • pollution incidence response (for both land and water); and • site operations (including maintenance of the construction compound, working hours and safety of the public).	

Subject Area	Commitment	Timing
Pollution Prevention Plan (PPP)	Prior to commencement of construction, a pollution prevention strategy, contained within the CEMP, will be agreed with SEPA to ensure that appropriate measures are put in place to protect watercourses and the surrounding environment.	Pre-Construction
Operation Environmental Management Plan	The Applicant will implement an Operation Environmental Management Plan (OEMP). Similar to the CEMP, the OEMP will set out the mitigation measures described in the EIA Report, and how the Applicant will manage and monitor environmental effects throughout the operation of the Proposed Development. The OEMP will also be developed in consultation with EAC, SEPA, NatureScot and HES where relevant.	Pre-Operational
Outdoor Access Management Plan	Prior to construction of the Proposed Development, an Outdoor Access Management Plan (OAMP) will be prepared in consultation with EAC. It will detail the maintenance of safe public access routes within and around the Site during construction and long-term public access during operation of the Proposed Development. Throughout construction, measures to manage diversion routes would be agreed with the relevant authorities. The diversion routes would be clearly marked and for safety reasons would direct the user away from any areas of construction. It is proposed that further details would be provided in an OAMP post consent. Although members of the public have the right to roam land in Scotland under the Land Reform (Scotland) Act 2003 there will be restricted access around the Proposed Development during the construction phase for health and safety purposes.	Pre-Construction, Construction and Operational
Chapter 5: Landscape & Visual Impact Assessment		
Design	The turbines themselves will be painted an off-white colour with a low reflectivity semi-matt finish.	Pre-Construction
Chapter 6: Ecology		
Ecological Clerk of Works	A suitably qualified Ecological Clerk of Works (ECoW) will be appointed prior to the commencement of construction to advise the Applicant and the Principal Contractor on all ecological matters. The ECoW will be required to be present onsite during the construction phase and will carry out monitoring of works and briefings with regards to any ecological sensitivities on the Site to the relevant staff of the Principal Contractor and sub-contractors.	Pre-Construction and Construction
Species Protection Plan	A SPP will be finalised and implemented during the construction phase. The SPP details measures to safeguard protected species known or likely to be in the area. The SPP includes pre-construction surveys and good practice measures during construction. Pre-construction surveys will be undertaken to check for any new protected species or features in the vicinity of the construction works. The results of the pre-construction surveys will be used to update the outline SPP ahead of construction starting. The SPP will remain a live document to be updated as required and in agreement with the ECoW where changes to the distribution and status of protected species and features are recorded.	Pre-Construction
Micrositing	Any micrositing of infrastructure will be based on a review of existing ecological data and the findings of completed pre-construction surveys, to take into consideration the potential for direct encroachment onto protected species features, sensitive habitats or GWDTEs, or indirect alteration of hydrological flows supporting sensitive habitats or GWDTEs. Any micrositing will also take into consideration any buffer distances on protected features identified, as detailed within the SPP.	Pre-Construction and Construction
BEMP	A detailed and final Biodiversity Enhancement Management Plan (BEMP), based on the Outline Biodiversity Enhancement Management Plan, will be agreed with the EAC and NatureScot in advance of construction and would ensure the Proposed Development secures significant biodiversity enhancements through restoring degraded habitats and strengthening nature networks.	Pre-construction / Construction.
	Implementation of the Biodiversity Enhancement Management Plan.	Post-construction and Operational
Decommissioning	Mitigation would include pre-decommissioning surveys, adherence to the Decommissioning Environmental Management Plan (DEMP), presence of an ECoW and adherence to a SPP.	Decommissioning
Biodiversity Enhancement	Enhancement and restoration of habitats through the delivery of a BEMP would reduce effects on habitats further. Overall, the BEMP would deliver significant biodiversity enhancement, in line with objectives outlined in NPF4 Policy 3, the Onshore Wind Policy Statement and the Scottish Biodiversity Strategy to 2045.	Post-construction and Operational
Badger	A100 m buffer from active badger setts to site infrastructure will be implemented in the design to minimise disturbance to badgers in line with best practice guidance.	Pre-Construction
Bats	A minimum 50 m buffer from turbine blade tips to important edge habitats for bats across the Site to reduce collision risk has been implemented in design.	Pre-Construction
	In line with best practice guidance on bats (NatureScot et al., 2021) the Proposed Development will utilise the method of reduced rotation speed whilst idling by feathering, at all wind turbines, to reduce collision risks to bats during the bat active period (April to October).	Operational
Protecting Water Environments	All instream work will be scheduled to avoid the migration, spawning, egg incubation and emergence period of salmonids. The exclusion period is October to May (SEPA). Forestry operations will also follow 'UKFS Guidelines on Forests and Water' which describe how to comply with the requirements to protect the water environment. Detailed supplementary guidance can be found in Forestry and Land Scotland's (formerly Forestry Commission) 'Managing Forest operations to protect the water environment' (2019) document. Following approval by the planning authority, an ecological baseline will be established which includes aquatic fish, macroinvertebrate and water quality sampling to comply with Marine Directorate (formerly Marine Scotland) (2021) 'Monitoring watercourses in relation to onshore wind farm development: generic monitoring programme'.	Pre-Construction and Construction

Subject Area	Commitment	Timing
Visual Assessments	Visual assessments of the watercourses (downstream of onsite works) will be carried out daily to ensure pollution is not entering watercourse. Silt protection measures should be regularly checked for their effectiveness, especially following periods of heavy rain. Recent pollution incidents in Ayrshire have been caused due to irregular checks and failed silt protection following heavy rain.	Construction
Water Management Plan	Water management plans will consider all potential avenues for pollution to enter watercourses and have appropriate pollution controls and silt mitigation measures in place prior to commencement of works. This should include measures to address run-off from new road surfaces.	Pre-Construction and Construction
Biodiversity Offsetting	Any biodiversity offsetting will consider riparian tree planting in the River Ayr catchment. Ayrshire Rivers Trust can provide recommendations on appropriate locations.	Construction
Invasive non-native species	Biosecurity protocols will be established to ensure that Invasive non-native species (INNS) are not introduced. Monthly checks during the growing season of Japanese knotweed, giant hogweed, Himalayan balsam and American skunk cabbage should be carried out within the development.	Construction
Cumulative Impacts	Ecological monitoring will take into consideration the cumulative impact of the Breezy Hill Energy Project development with any nearby developments (e.g. North Kyle Energy Project). The Blueboots Burn, Burnock Water and Water of Coyle all drain both development sites and could be adversely affected should either or both developments fail to adequately protect these watercourses.	Construction
Watercourse Crossings	Immediately prior to any new water crossings being installed or upgraded, fish rescues will be scheduled in and conducted regardless of the size of watercourse.	Pre-Construction
	New or upgraded water crossings will follow SEPA's 'Engineering in the water environment: good practice guide. River Crossings' guidance and ensure that new water crossings do not become an obstacle to fish migration. Perched outfalls, insufficient water depth and/or high-water velocities through culverts are common problems that can cause habitat fragmentation. This is of particular importance for resident brown trout who carry out local migrations to access different habitats for refuge and as part of their life cycle.	Construction
Chapter 7: Ornithology		
Bird Disturbance Management Plan	Bird Disturbance Management Plan (BDMP) will be implemented during construction of the Proposed Development and will form part of the CEMP. The BDMP will detail measures to ensure legal compliance and safeguard breeding birds known to be in the area and will include species-specific guidance, such as works exclusion buffers and temporal restrictions if appropriate. This will include avoiding disturbance to lekking black grouse if required. The BDMP shall include pre-construction surveys and good practice measures during construction. Pre-construction surveys will be undertaken to check for any new breeding bird activity in the vicinity of the construction works. The ECoW will oversee the implementation of the above measures.	Pre-construction and Construction
Black Grouse and Goshawk	In order to reduce any collision risks to black grouse (and potentially other species such as goshawk), the following good practice would be implemented: Fencing related to the Proposed Development will be kept to a minimum and any fencing used will be 'marked' using suitable materials and methods; Any wires/guy-lines associated with met masts will also be marked with suitable bird flight diverters/line markers; and Consideration of marking particular turbine towers/railings associated with the steps leading to the tower access point to increase their visibility.	Pre-construction and Construction
Chapter 8: Geology, Hydrology, Hydrogeology and Peat		
Sedimentation Pollution and Erosion	Best practice measures to prevent sedimentation pollution and erosion will be implemented, including: All earthworks would be carried out in accordance with BSI Code of Practice for Earth Works BS6031:2009. Stockpiles will be placed at least 50 m from watercourses. The height and maximum slope angle will be in accordance with BSI guidance. Where there are stockpiles of peat, re-wetting will occur to prevent peat drying out. Sediment pollution mitigation measures, including drains will be implemented at the base of stockpiles. Sediment pollution mitigation measures will be emplaced across the Proposed Development, this may include drainage, silt fencing, settlement lagoons, and check dams. Plant movements will be minimised through management measures. Measures to prevent sediment on public roads may include wheel washing or road sweeping at the site entrance. Any CAR licences required for site discharges or watercourse crossings will be in place from SEPA prior to construction. A 'wet weather policy' will be in place where the Principal Contractor would reduce or suspend works during periods of significant rainfall at the site. The policy will include that site management checks local weather forecast daily, regularly checks and maintains pollution control system and suspends work during adverse conditions. Where topography dictates that working platforms are needed, these would be formed to ensure that surface water drains away from watercourses. To avoid unnecessary compaction and disturbance to soils, working areas and corridors would be established and demarcated, with construction operatives appropriately inducted and trained to avoid work outside the designated work areas.	Construction
Chemical Pollution	Best practice measures to prevent chemical pollution include: Sufficient and continued dewatering at the turbine foundation excavation until the concrete is cured, to prevent leaching. Dewatering at the turbine will be minimised through careful management and reducing the time the excavation is open, including concrete pouring. A method statement to address the transport, transfer, handling and pouring of liquid concrete at foundations will be undertaken by the Principal Contractor. Cement, grout and unset concrete will not be allowed to enter the water environment. No operations involving concrete transfer will take place within 50 m of watercourses. Washing out of vehicles areas will be established at designated locations and at least 50 m away from any watercourse.	Construction

Subject Area	Commitment	Timing
	Fuel and chemicals will be stored in impermeable bunded containers of at least 110% of the volume stored. All fuelling on-Site will occur in a designated location, at least 50 m from watercourses. Spill kits will be stored across the site and within all vehicles and plant. On-site toolbox talks with construction staff will include a report of all on-site spills and the correct implementation of spill kits. All vehicles and plant will be checked regularly with regular maintenance undertaken as required.	
Surface Water Drainage	Best practice measures to enable surface water drainage management include: A suitable surface water drainage strategy with detailed drainage design will be prepared and agreed prior to construction. Identified watercourse crossings in Technical Appendix 8.5 will be designed to convey flows of 0.5%AEP (1:200yr) plus climate change, to prevent exacerbating downstream flood risk. Trackside drainage ditches will be designed to ensure separation of clean water drainage from potentially contaminated drainage. Check dams will be employed to slow down the flow of water and decrease erosion within drainage ditches. Sumps and settlement lagoons will be used to treat and slow down the flow of water during periods of high rainfall. This will be employed at drainage outlets prior to reaching watercourses. Areas of excavation and earthworks will have drainage designed to drain to a sump to prevent pollution and increased surface water run-off. Hydrological connectivity between upslope and downslope will be maintained through cross-drainage and culverts.	Construction
Ground Water Quality	Where necessary, sufficient and continued dewatering will be undertaken at turbine foundation excavations until the concrete is cured, to prevent leaching. To prevent pollution to groundwater, other standard mitigation will include appropriate management measures for transfer of concrete and minimising the duration of concrete pouring. Other measures will include appropriate storage of fuels and chemicals, refuelling of plant and vehicles at designated locations and distributing spill kits throughout the Site and within all plant and vehicles.	Construction
Water Quality Monitoring Plan	A Water Quality Monitoring Plan (WQMP) will be prepared and agreed with EAC, in consultation with SEPA, prior to commencement of construction.	Pre-Construction, Construction and Operational
Chapter 9: Forestry		
Woodland Clearance	Minimisation of woodland clearance and specifically any woodland clearance within designated areas.	Pre-Construction
Windblow Risk	Stable woodland edges will be retained in order to reduce the risk of windblow.	Pre-Construction
Compensatory Planting	Compensatory planting will be implemented to address permanent loss of forest resource in appropriate locations.	Construction
Chapter 10: Cultural Heritage		
Preservation	Where possible, any cultural heritage remains should be preserved in-situ through avoidance of direct effects. Where this is not possible, preservation through record should be achieved following consultation with East Ayrshire Council, in accordance with NPF4 and PAN 2/2011, using some or all of the following methods: archaeological survey, building recording, evaluation, excavation, post-excavation analyses and publication.	Pre-Construction and Construction
Archaeological watching Brief	There is some potential for the survival of hitherto unrecorded sub-surface cultural heritage remains within the Proposed Development. East Ayrshire Council may require mitigation for this potential, which could take the form of an archaeological watching brief during the Construction phase of the Proposed Development.	Pre-Construction and Construction
Chapter 11: Traffic and Transport		
Construction Traffic Management Plan	The following measures will be implemented during the construction phase through the CTMP: • Agree AIL route modifications and improvements with EAC / Ayrshire Roads Alliance (ARA) and Transport Scotland (TS). Works which will be required to facilitate turbine deliveries are outlined in the RSR, which is presented in Annex A of Technical Appendix 11.1; • Where possible, the detailed design process will minimise the volume of material to be imported to Site to help reduce HGV numbers; • A Staff Travel Plan, including transport modes to and from the worksite (including pick up and drop off times); • A Transport Management Plan for AIL deliveries; • All materials delivery lorries (dry materials) should be sheeted to reduce dust and prevent spillage on public roads; • Specific training and disciplinary measures should be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway; • Wheel cleaning facilities may be established at the Site entrance, depending on the views of EAC / ARA;	Pre-Construction and Construction

Subject Area	Commitment	Timing
	• Normal Site working hours will be limited to between 0700 and 1900 Monday to Friday and 0700 and 1300 on Saturdays though component delivery and turbine erection may take place outside these hours i.e. depending on when police escort is available; • Appropriate traffic management measures will be put in place on the A713, B741 leading through to the Site, to avoid conflict with general traffic, subject to the agreement of EAC / ARA. Typical measures will include HGV turning and crossing signs and / or banksmen at the Site access, and warning signs; • Provide construction updates on the project website, social media feeds and a newsletter to be distributed to residents within an agreed distance of the Site; • Adoption of a voluntary reduced speed limits, for example on the A713 and B741 and at other locations to be agreed with EAC / ARA; • All delivery drivers will be required to attend an induction to include: • A toolbox talk safety briefing; • The need for appropriate care and speed control; • A briefing on driver speed reduction agreements (to slow Site traffic at sensitive locations through the area); and • Identification of the required access routes and the controls to ensure there is no departure from these routes.	
Specific Abnormal Load Mitigation	All abnormal load deliveries will be undertaken at appropriate times (to be discussed and agreed with EAC / ARA, TS and police) with the aim to minimise the effect on the local road network. It is likely that the abnormal load convoys would travel in the early morning periods, before peak times while general construction traffic would generally avoid the morning and evening peak periods. Advance warning signs will be installed on the approaches to the affected road network. Information signage could be installed to help improve driver information and allow other road users to consider alternative routes or times for their journey (where such options exist). The location and numbers of signs will be agreed post consent and would form part of the wider traffic management proposals for the Proposed Development. Information on the wind turbine convoys will be provided to local media outlets such as local papers and local radio to help assist the public. Information will relate to expected vehicle movements from the Port of Entry (PoE) through to the Site access junction. This will assist residents becoming aware of the convoy movements and may help reduce any potential conflicts. The Applicant will also ensure information is distributed through its communication team via the project website, local newsletters, and social media.	Pre-Construction, Construction and Decommissioning
AIL Transport Management Plan	An Abnormal Load Transport Management Plan will be prepared to cater for all movements to and from the Proposed Development Site. This will include: Procedures for liaising with the emergency services to ensure that police, fire and ambulance vehicles are not impeded by the loads. This is normally undertaken by informing the emergency services of delivery times and dates, and agreeing communication protocols and lay over areas to allow overtaking; A diary of proposed delivery movements to liaise with the communities to avoid key dates such as local events; A protocol for working with local businesses to ensure the construction traffic does not interfere with deliveries or normal business traffic; and Proposals to establish a construction liaison group to ensure the smooth management of the project / public interface with the applicant, the construction contractors, the local community, and if appropriate, the police forming the committee. This committee would be a means of communicating and updating on forthcoming activities and dealing with any potential issues arising.	Pre-Construction, Construction and Decommissioning
OAMP	Within the Site, consideration has been given to pedestrians and cyclists alike due to potential interactions between construction traffic and users of paths, cycle routes and public roads. An Outdoor Access Management Plan (OAMP) will be developed and secured via a planning condition.	Construction
Damage	Any damage caused by traffic associated with the Proposed Development during the construction phase that would be hazardous to public traffic will be repaired immediately. Damage to road infrastructure caused directly by construction traffic will be repaired and street furniture that is removed on a temporary basis will be fully reinstated. There will be a regular road review, and any debris and mud will be removed from the carriageway using an on-site road sweeper to ensure road safety for all road users.	Construction
Chapter 12: Noise		
Pre-blasting Management Programme	A pre-blasting management programme will be prepared which would identify the most sensitive receptors that could be potentially affected by blasting noise. The programme would contain details of the proposed frequency of blasting, and proposed monitoring procedures. The operator would inform the nearest residents of the proposed times of blasting and of any deviation from this programme in advance of the operations. The programme would also contain contact details which would be provided to local residents should concerns arise regarding construction and blasting activities. In addition, each blast will be designed carefully to maximise its efficiency and to reduce the transmission of noise.	Pre-Construction and Construction
Chapter 13: Aviation		
Article 222 of the ANO (CAP 393)	Appropriate marking, lighting and aids to navigation will be employed during the construction, operational and decommissioning phases as appropriate to ensure the safety of all aviation stakeholders. Appropriate lighting will ensure the onshore structures are visible for aeronautical Search And Rescue (SAR) and emergency response procedures.	Construction, Operational and Decommissioning
Defence Geographic Centre	Information regarding construction should be passed to the DGC at least 10 weeks in advance of the obstacle type(s) erection detailing position, height (tip of arc) and type of aviation lighting.	Pre-Construction

Subject Area	Commitment	Timing
Defence Infrastructure Organisation Safeguarding	Notify DIOS of the following at least 14 days prior to the commencement of construction: • The date of the commencement of construction; • The date any turbines are brought into use; • The maximum height of any construction equipment to be used; • The maximum heights of any turbine and meteorological mast to be constructed; • The latitude and longitude of each turbine and meteorological mast to be constructed; and • The DIOS must be notified of any changes to the information supplied and of the completion of construction.	Pre-Construction
NATS Aeronautical Information Service	Appropriate information about the site construction and any associated lighting (where applicable), for example the height and temporary location of construction cranes, should be provided to the NATS AIS (for promulgation in applicable aviation publications including the UK Integrated Aeronautical Information Package (IAIP)).	Pre-Construction
Chapter 14: Other Issues		
Wind Farm Shadow Flicker Protocol	Prior to the erection of the first turbine a written scheme will be submitted to and approved in writing by the Local Planning Authority. This will set out mitigation measures to alleviate shadow flicker attributable to the Proposed Development as well as a protocol for addressing any complaint received from a receptor within the Study Area.	Pre-Construction
Possible Mitigation Measures	Mitigation measures could include the provision of local screening to reduce or block shadow flicker affecting a receptor. Should screening provision not be possible, the most effective mitigation measure to mitigate shadow flicker is by selective automatic turbine shutdown during the times of year when shadow flicker is predicted, if the weather conditions are correct. The relevant technology which will allow for the automatic shutdown of the turbine will be fitted to the Proposed Development turbines and details included within the 'Wind Farm Shadow Flicker Protocol'.	Pre-Construction and Operational