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Introduction

1.1 The Schedule of Commitments identifies the mitigation, compensation and enhancement measures that have been proposed throughout the Environmental Impact Assessment (EIA) Report to prevent, reduce or offset the effects of the Proposed Development on the environment.

1.2 Mitigation measures have been integral to the design evolution of the Proposed Development as described in **Chapter 2: Site Description and Design Evolution**. A series of environmental and technical constraint design reviews were undertaken to minimise potential significant environmental impacts prior to finalising the final design of the Proposed Development. Areas which were examined in depth include landscape and visual constraints, peat, sensitive habitats, cultural heritage and hydrological constraints.

1.3 The mitigation measures in **Table 16-1** are those which would be applied during the construction, and operation of the Proposed Development. A number of these measures are embedded mitigation, undertaken through good practice and to adhere to relevant legislation during all stages of the Proposed Development.

1.4 Embedded design mitigation measures are not included in the table but are described in **Chapter 2: Site Description and Design Evolution**.

Schedule of Commitments

Table 16-1: Schedule of Commitments

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
Chapter 3: Description of Development	Pre and during Construction (CEMP)	**Outline Construction and Environment Management Plan (CEMP)** An outline Construction Environmental Management Plan (CEMP) for the Proposed Development is provided in **Technical Appendix 3.1** which sets out the principles which would be detailed in a detailed CEMP, to be agreed prior to construction commencing. This detailed CEMP would be agreed with Dumfries and Galloway Council in consultation with relevant statutory consultees. The detailed CEMP would, as a minimum, include key details of: • An updated Schedule of Mitigation (SM); • A Construction Methodology Statement (CMS); • A Site Health and Safety Plan (including a Battery Storage Fire Safety Plan); • A Habitat Management Plan (HMP); • A Pollution Prevention Plan (PPP); • A Site Waste Management Plan (SWMP); • A Water Management Plan (WMP); • An Access Management Plan; and • A Construction Traffic Management Plan (CTMP); From the list above an outline HMP (**Technical Appendix 8.5**) has been prepared. This document would be updated into a detailed version, in conjunction with preparation of the detailed CEMP, prior to construction commencing and in agreement with Dumfries and Galloway Council, and other relevant stakeholders.
	Construction	**Environmental Clerk of Works (EnvCoW)** The applicant will engage an EnvCoW onsite during the construction phase. The services of other specialist advisors will be retained as appropriate, such as an Archaeological Advisor, to be called on as required to advise on specific environmental issues. The Principal Contractor will ensure construction activities are carried out in accordance with the mitigation measures outlined in this Schedule of

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Commitments, the EIA Report and any planning conditions, and this will be monitored by the applicant and the EnvCoW.
	Construction	**Working Hours** Construction will be limited to 07:00 to 19:00 Monday to Friday and 07:00 to 16:00 on Saturdays, aside from certain activities – such as abnormal load deliveries, concrete pours for turbines, turbine erection – which may need to occur outside these hours (excluding Sundays, unless in agreement of the council).
	Construction (Micrositing)	**Micrositing** It is proposed that a 50m micrositing tolerance for wind turbines and a 75m micrositing tolerance for all other infrastructure would be applied to the Proposed Development (so long as infrastructure does not move within 50m of any identified watercourse). Within this distance any changes from the consented locations would be subject to approval of the EnvCoW as required and in consideration of other known constraints.
	Construction	**Watercourse Crossings** One new watercourse crossing will be constructed as part of the Proposed Development in order to minimise impacts upon the water environment. Details of watercourse crossings are set out within **Technical Appendix 10.2: Schedule of Watercourse Crossings.**
	Construction	**Lighting** Artificial lighting may be required during the construction phase to ensure safe working conditions, during periods of limited natural light. Examples include vehicle and plant headlights, construction compound lighting, floodlights and mobile lighting units - to be used around specific construction activities. It is intended that the type of lighting would be non-intrusive (e.g. directed towards work activity and away from the Site boundary), to minimise impact on local properties and any other environmental considerations. Further details on lighting are provided in **Technical Appendix 3.1: Outline Construction Environmental Management Plan**. A detailed CEMP would be agreed with Dumfries and Galloway Council in consultation with relevant statutory consultees, prior to construction work commencing.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
	Construction	**Materials Sourcing and Waste Management** For construction, the Proposed Development would require a range of materials (e.g. stone for access tracks, the temporary Site compound and the substation compounds). Excavated material from the turbine bases and access tracks would be used onsite for restoration/reinstatement. A Site Waste Management Plan would be developed for implementation during construction, as discussed in the **Outline CEMP (Technical Appendix 3.1)**. This outlines the materials requirements and waste generation during construction and how the applicant intends to consider the management of these aspects. Concrete would be batched onsite at the construction compound for which water would be required. Water would also be required for welfare facilities and to dampen track during dry weather, although this would be minimal and an abstraction license is not anticipated to be required.
	Post Construction	**Reinstatement** After construction has been completed, the crane hardstandings will remain in place for future maintenance, but the construction compounds and turbine laydown areas would be restored as close as possible to their original condition. All portacabins, machinery and equipment would be removed from the compounds prior to the Proposed Development becoming operational. Site restoration will be programmed, managed and carried out to allow restoration of disturbed areas as early as possible and in a progressive manner. A Decommissioning and Restoration Plan would be agreed with Dumfries and Galloway Council prior to construction.
	Post Construction	**Site Restoration** Soils would be used for reinstatement works associated with access tracks, cable trenches, turbine foundations, solar PV module foundations, crane hardstandings, the substation compound, and the temporary construction compounds. The upper vegetated turfs would be used to dress infrastructure edges and to reinstate the surface of restoration areas. It is anticipated that most of the soil resources within areas directly affected by construction activities would be stored and reinstated as close as possible to where they were excavated in accordance with best practice; so that the Site would be restored with minimal movement of material from its original location. It is not anticipated that any excavated material would leave the Site.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Tree Planting The Proposed Development would result in the loss of approximately 0.33km, and 0.06km of native hedgerow habitat. To compensate for this loss, the Proposed Development includes the creation of approximately 1.19 ha of new native broadleaf woodland. **Habitat Management Plan (HMP)** As part of the Proposed Development there are a number of measures proposed, which would enhance, restore, and create onsite habitat for various species. These proposals are set out in **Technical Appendix 8.5: Outline Habitat Management Plan**, and include: • 19.31ha of wet meadow improvement via an amended animal grazing regime and potentially ditch blocking; • 1.19ha of native tree planting; • Provision and maintenance of bat roost and hibernation boxes; and • Provision and maintenance of reptile hibernacula. A detailed HMP would be agreed with Dumfries and Galloway Council in consultation with relevant statutory consultees, prior to construction work commencing.
	Decommissioning	**Decommissioning and Restoration Plan** At the end of its operational life, the Proposed Development would be decommissioned unless an application is submitted and approved to extend the operational period or to repower the Site. The decommissioning period would be expected to take up to one year. The ultimate decommissioning protocol would be agreed with Dumfries and Galloway Council and other appropriate regulatory authorities in line with best practice guidance and requirements of the time. This would be done through the preparation and agreement of a Decommissioning and Restoration Plan (DRP). Financial provision for the decommissioning would be provided. It is anticipated that the DRP would be the subject of a planning condition and would reflect the relevant legislation and best practice current at the time of decommissioning and restoration.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Wind Turbines Turbines would be dismantled and removed from Site. Turbine components would be dismantled onsite using standard engineering techniques similar to those used for the original installation. The re-use or recycling of components would be prioritised, which would include exploration of any viable second-hand turbine market. Turbine oils or any other oils would be removed from the Site and disposed of appropriately. **Wind Turbine Foundations** Topsoil material that has revegetated around the foundations would be excavated first and temporarily stored for re-use following partial removal of foundations. The top 1m of the turbine foundation would be removed and disposed of appropriately. This is considered preferential to removing all infrastructure, due to the potentially lower environmental impacts associated with excavating, processing and removing concrete from the Site. The excavated foundation would be reprofiled with soil and reseeded. **Solar PV Arrays** Components including solar PV array modules, mounting structures, cabling, inverters and transformers would be removed from the Site and recycled or disposed of in accordance with good practice and market conditions at that time. **Crane Hardstandings** Topsoil material that has revegetated the crane hardstandings would be excavated first and temporarily stored for reuse following partial removal of crane hardstandings. The top 1m of the crane hardstandings would be removed and disposed of appropriately. This is considered preferential to removing all infrastructure, due to the potentially lower environmental impacts associated with excavating, processing and removing aggregate from the Site. The excavated hardstandings would be reprofiled with soil and reseeded. Recovered geogrids and geotextiles would be disposed of appropriately. All granular materials would be excavated and removed from the Site, for re-use where practicable.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Access Tracks Access tracks would be left in-situ, which would reduce potential environmental impacts associated with potential sediment migration into watercourses as a result of removing all tracks. **Watercourse Crossings** These would remain in-situ in association with the access tracks after decommissioning. This would reduce decommissioning activities in the vicinity of watercourses and thus potential for contamination as a result of run-off. **Underground Cabling** These are underground and therefore all cables would be made safe and left in-situ. This is considered preferential to extracting cables from the cable trenches due to the potentially greater environmental impacts associated with excavating, processing and removing the cable from the Site. **Substation Compound** All equipment from within the substation compound would be removed from Site and either reused, recycled or disposed of appropriately. Oils or lubricants from the compound would be removed and disposed of appropriately. The control building, and related infrastructure, would then be demolished and all materials would be reused, recycled or disposed of appropriately. **Battery Storage Units** The full battery energy storage system would be de-energised and then any battery units, transformers or other electrical equipment that is re-usable, carefully dismantled and removed. The decommissioning process would essentially be the construction process but in reverse. Fencing shall be removed to ease access, and then all other above ground structures removed. Concrete plinths and other concrete foundations will be excavated and removed for recycling/disposal. Any contamination from the batteries or transformers would be investigated and the ground remediated where any contamination has occurred. This is likely to be isolated locations (if at all), and therefore removal of contaminated material for onward treatment or disposal is the most likely treatment. Cables and buried services would be

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		removed. The area of the battery energy storage system would then be regraded and blended into the surrounding ground, taking note of any changes to the surrounding land during the lifetime of the facility. **Substation Compound Foundation** The top 1m of the compound foundations would be removed and disposed of appropriately. The excavated hardstandings would be reprofiled with soil and reseeded.
Chapter 8: Ecology	Pre-Construction	**Pre-Construction Surveys** Due to the time that will have elapsed since the surveys undertaken for this EIA and the determination of this application, and the possibility that activity by protected mammal species could have changed in the intervening period, a pre-construction survey for relevant species would be undertaken during the last available season prior to construction taking place. This would cover all watercourses and other suitable habitat within 250m of infrastructure and associated working areas. The results of the pre-construction surveys would inform the need for further mitigation (if required) in respect of working practices or to consult with NatureScot if required. **Invasive Species** If, during pre-construction surveys, invasive non-native species are identified, an Invasive Species Management Plan would be prepared and form a stand alone document, or be included within the full HMP. **Protected Mammals** If protected mammal presence is recorded close to working areas (e.g. watercourse crossings) during pre-construction surveys, additional mitigation measures would be employed to avoid significant disturbance. These additional measures are considered likely to be required and would likely include displacement/exclusion of protected mammals from working areas. This would be undertaken under appropriate licences and at the recommended time so year (ideally mid-March to mid-April in Scotland (as per Dean, Strachan, Gow, & Andrews, 2016)).

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Reptiles Given the low numbers of reptiles likely to be present, the large areas of suitable habitat that would remain unaffected by the works and given also the large spatial scale of the works, fencing and translocation are not considered appropriate. Proposed mitigation, therefore, would involve vegetation management and the identification/removal of potential refugia and hibernacula if present. Where appropriate and safe to do so, potentially suitable habitats for reptiles located within construction working areas would be cut, under the supervision of the Environmental Clerk of Works (EnvCoW), prior to construction works commencing in that area, in order to encourage reptiles to leave the area. Suitable habitat within working areas would also be searched by the EnvCoW prior to construction commencing and any potentially suitable refuges would be removed. These works would take place during the active season for reptiles (typically April to October, although this is dependent upon the nature of the weather conditions in any one year).
	Pre and During Construction	**Environmental Clerk of Works (EnvCoW)** A suitably qualified EnvCoW would be appointed prior to the commencement of construction to advise on all ecological management. The EnvCoW would be employed for the duration of the construction and reinstatement periods, to oversee the safeguarding of natural heritage interests. The role of the EnvCoW would include the following tasks: • giving briefings to relevant staff regarding any ecological sensitivities onsite; • undertake pre-construction surveys (bats, reptiles, otter, badger, pine marten etc.) and advise on ecological issues where required; • supervision of implementation of the HMP measures which are to be undertaken during the construction phase; • monitoring compliance during the construction and decommissioning phase of the Proposed Development phases and reporting any breaches to the applicant's Construction Project Management Team; • give toolbox talks to all staff onsite, e.g. an ecological induction, so staff are aware of the ecological sensitivities on the Site and the legal implications of not complying with agreed working practices; • agree and monitor measures designed to minimise damage to retained habitats (and habitats for which restoration is proposed as part of the HMP); • undertake pre-construction surveys and checks and advise on ecological issues where required; and

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		• undertaken pre-construction inspections of areas which require reptile mitigation and carry out an appropriate level of supervision during vegetation clearance. The EnvCoW would also undertake additional roles such as assisting with water quality monitoring and checking for nesting birds (see **Chapter 9: Ornithology** and **Chapter 10: Hydrology, Hydrogeology and Geology** of the EIA Report). **Hazards to Protected Mammals** All potentially dangerous substances or materials within the temporary construction compound would be carefully stored to prevent them causing any harm to otters or other mammal species which may enter the compound at night. During construction, all excavations greater than 1m depth would either be temporarily covered at night or designed to include a ramp to allow otters and other animals a means of escape should they fall in. A speed limit of no greater than 15mph would be implemented onsite to reduce the risk of road traffic collisions. **Surface Water and Peat Soils** Good practice measures in relation to pollution risk, sediment management and watercourse crossings to be adopted during the construction and operation phases are set out in **Chapter 10** and **Technical Appendix 3.1: Outline CEMP** (detailed CEMP to be agreed with Dumfries and Galloway Council in consultation with relevant statutory consultees, prior to construction work commencing). These will be implemented during construction, reinstatement and habitat restoration required to fulfil the aims of the HMP. During the construction phase, good practice techniques with respect to peatland environments, as contained within 'Good Practice during Wind Farm Construction' (SNH, 2019), would be implemented.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Retained Habitat and Habitat Reinstatement Good practice measures to protect retained habitats during the construction phase would be implemented, including the erection of temporary protective fencing demarcating the working footprint, to be overseen and policed by the EnvCoW. Good practice techniques for vegetation and habitat reinstatement would be adopted and implemented on areas subject to disturbance during construction as soon as is practicable. Primary targets of the outline HMP (A detailed HMP would be agreed with Dumfries and Galloway Council in consultation with relevant statutory consultees, prior to construction work commencing) include the management of rush pasture and transition mire. This management will comprise: • Maintain surface water at pre-construction level; • Maintain rush pasture habitat using grazing; • Maintain open habitat by limiting tree and scrub regeneration; and • Maintain population of whorled caraway. **Construction and Environment Management Plan (CEMP)** Further details of pollution prevention control measures will be provided in the detailed CEMP. Measures will include: • emergency spill kits will be readily available onsite to protect against accidental release, leakage or spillage of potentially contaminative substances and materials; • construction plant to be checked regularly for leakages and will undergo maintenance on a regular basis; • construction traffic to be limited to allocated areas of the Proposed Development; • concrete and cement mixing and washing areas will be sited at appropriate distances from any surface watercourses to limit potential pollution of the water environment; • site drainage measures, including drainage ditches and silt traps, will be provided to collect and treat increased surface run off; and

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		• assessment of Earthworks Specification, chemical analysis and assessment of imported fill materials.
	Construction (Good Practice Measures)	No significant effects on protected species have been identified as a result of the construction of the Proposed Development. However, should any evidence be found, a Species Protection Plan will be prepared to ensure that all reasonably practicable measures are taken so that provisions of the relevant wildlife legislation are complied with in relation to all protected species. Both the **Outline Habitat Management Plan (OHMP) Technical Appendix 8.5** and **Outline CEMP Technical Appendix 3.1** detail the standard good practice measures and species-specific mitigation recommended for the construction and operational phases of the Proposed Development. A detailed CEMP and detailed HMP would be agreed with the Dumfries and Galloway Council, in consultation with relevant statutory consultees, prior to construction work commencing. **Environmental Clerk of Works** A suitably qualified EnvCoW would be employed for the duration of the construction and reinstatement periods, to ensure natural heritage interests are safeguarded, although this may not necessarily be a full-time role throughout. The role of the EnvCoW would include the following tasks: • to give toolbox talks to all staff onsite, e.g. an ecological induction, so staff are aware of the ecological sensitivities on the Site and the legal implications of not complying with agreed working practices; • to undertake pre-construction surveys (e.g. otter and badger) and advise on ecological issues where required; and • to carry out pre-construction inspections of areas which require reptile mitigation (i.e. supervision during vegetation clearance). The EnvCoW would also undertake additional roles such as assisting with hydrological measures or checking for nesting birds (see **Chapter 9: Ornithology** and **Chapter 10: Hydrology, Hydrogeology and Geology**).

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Reptiles In order to comply with the Wildlife and Countryside Act 1981 (as amended in Scotland) mitigation would be employed to reduce the chances of inadvertently killing or injuring individual reptiles during construction works. Given the low numbers of reptiles likely to be present, the large areas of suitable habitat that would remain unaffected by the works and given also the large spatial scale of the works, fencing and translocation are not considered appropriate. Proposed mitigation therefore would involve identification/removal of potential refugia and hibernacula if present. The proposed Site speed limit of 15mph would also reduce the likelihood of accidental injury/killing of reptiles by construction traffic. Where appropriate and safe to do so, the vegetation of all construction working areas with potentially suitable open habitats for reptiles will initially be cut during the active season for reptiles (April to October). Taking into account ornithological sensitivities, October is likely to be the optimal month for this task. Mitigation works will be carried out to reduce the height of vegetation (e.g. use of a brush cutter or tractor mounted flail) and make it less attractive for reptile habitation. The works will be carried out under the supervision of the EnvCoW. Working areas would then be kept unsuitable for reptiles through regular cutting until construction in that location commences. **General** A Site speed limit of 15mph would be in place at all times to reduce the risk of collision and protected species mortality associated with construction vehicles. Excavations would be covered at the end of each working day to minimise the risk of faunal species becoming injured or trapped. Alternatively, a wooden plank or similar means of egress will be placed inside to allow a means of escape for animals should they enter the excavation. Any temporarily exposed open pipe system would be capped in such a way as to prevent wildlife gaining access. Works would be conducted during daylight hours where possible, avoiding the sensitive periods of dawn and dusk when wildlife is most active.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		In the event that a protected species is discovered onsite, all work in that area would stop immediately and the EnvCoW contacted. Increased buffer areas may be required in these locations. Details of the local police Wildlife Crime Officer, NatureScot Area Officer, and Scottish Society for the Prevention of Cruelty to Animals (SSPCA) relevant Officer would be held in the Site emergency procedure documents.
	Operation	**Habitat Management Plan (HMP)** As part of the Proposed Development there are a number of measures proposed, which would enhance, restore, and create onsite habitat for various species. These proposals are set out in **Technical Appendix 8.5: Outline Habitat Management Plan**, and include: • 19.31ha of wet meadow improvement via an amended animal grazing regime and potentially ditch blocking; • 1.19ha of native tree planting; • Creation of hedgerows; • Provision and maintenance of bat roost and hibernation boxes; and • Provision and maintenance of six reptile hibernacula. A detailed HMP would be agreed with Dumfries and Galloway Council in consultation with relevant statutory consultees, prior to construction work commencing. The outline HMP provides high level proposals for the above aims. The full HMP would provide further detail on how and where these proposals would be carried out, and management plans for doing so where appropriate. This includes e.g. a reduced grazing plan. **Outline Habitat Management Plan (Outline HMP) Technical Appendix 8.5** sets out the monitoring anticipated to be required during the operational phase of the wind farm (a detailed HMP would be agreed with Dumfries and Galloway Council, in consultation with relevant statutory consultees, prior to construction work commencing). This monitoring is as follows:

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		Rush Pasture / Transition Mire • Water Table Monitoring – For one year before construction and for the first three years after construction. Requirements to be assessed thereafter. • Habitat Condition and Botanical Monitoring – Annually for the first five years, and every five years thereafter. • Invertebrate Monitoring – Annually for the first five years, and every five years thereafter. • Tree and Scrub Cover Monitoring – Annually for the first five years. Requirements to be assessed thereafter. **Native Tree and Hedgerow Monitoring** • Tree health and survivial Monitoring – Annually for the first three years, requirements for further assessment would be assessed thereafter. **Bat Boxes / Reptile Hibernacula Monitoring** • Reptile Hibernacula Monitoring - Monitoring should take place annually for the first three yearsafter construction works have completed and every five years thereafter. **Bat Monitoring** • Bat Monitoring – Year one of operation with requirement to be assessed thereafter. Should the monitoring find that target conditions, and therefore the goals and objectives of the HMP are not being met, then remedial action would be employed, and the HMP updated accordingly, in consultation with the HMP Working Group. Monitoring results would be reported annually (in years when monitoring takes place) and recommendations made for changes to management prescriptions if objectives are not being met, as appropriate. As such, the detailed HMP would be a live document, such that it can be altered following monitoring results, unexpected events or evolving guidance. Any amendments to the HMP because of

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		the outcome of monitoring would be agreed with the HMP Working Group in advance of any such revised prescriptions being implemented. The HMP would be reviewed every five years.
Chapter 9: Ornithology	Pre and during Construction	**Breeding Bird Protection Plan (BBPP)** A Breeding Bird Protection Plan (BBPP) would be developed by a suitably experienced ornithologist, and agreed in consultation with NatureScot, in advance of works commencing on the Site. The BBPP would set out in sufficient detail the measures and procedures that would be followed to ensure the protection of sensitive species as well as legally protected species during construction.
		Environmental Clerk of Works A suitably qualified Environmental Clerk of Works (EnvCoW) would be employed to oversee activity at key points for the duration of the construction and reinstatement periods (at a frequency to be agreed with the relevant Local Planning Authorities and NatureScot), to ensure natural heritage interests are safeguarded. The role of the EnvCoW would include the following specific roles with regard to the ornithology interest of the Site: • prior to the start of construction and / or the breeding bird season, the EnvCoW would make contractors aware of the ornithological sensitivities within the Site (particularly with regard to the potential presence of sensitive breeding species, i.e. breeding waders and raptors); and • the EnvCoW would undertake surveys for nesting birds throughout the construction period that falls within the nesting season and set up and monitor appropriate exclusion areas whilst nests of relevant species are in use.
	Pre and during Construction. Operation	**Habitat Management Plan (HMP) - Ornithology** A detailed Habitat Management Plan (HMP) will be developed, pre construction, using the current proposed outline HMP (**Technical Appendix 8.5**) as a starting point. This detailed HMP will aim to monitor the occurrence of sensitive species on the Site with a view to identifying habitat management measures in support of species present.

Chapter 10: Hydrology, Hydrogeology and Geology	Pre and during Construction	**Flood Risk / Watercourse Crossings** The new watercourse crossing will be sized to pass the 200-year flood with an allowance for predicted climate change uplifts. The design of the watercourses will also be agreed with SEPA prior to construction and will be cognisant of industry good practice. **Good Practice Measures (Fluvial Flood Risk and Watercourse Crossings)** It is proposed to adopt Sustainable Drainage Systems (SuDS) as part of the Proposed Development. SuDS techniques aim to mimic pre-development runoff conditions and balance or throttle flows to the rate of runoff that might have been experienced at Site prior to development. Good practice in relation to the management of surface water runoff rates and volumes and potential for localised fluvial flood risk would include the following: • drainage systems would be designed to ensure that any sediment, pollutants or foreign materials which may cause blockages are removed before water is discharged into a watercourse; • onsite drainage would be subject to routine checks to ensure that there is no build-up of sediment or foreign materials which may reduce the efficiency of the original drainage design causing localised flooding; • appropriate drainage would attenuate runoff rates and reduce runoff volumes to ensure minimal effect upon flood risk; • where necessary, check dams would be used within cable trenches in order to prevent trenches developing into preferential flow pathways; and • as per good practice for pollution and sediment management, prior to construction, section specific drainage plans would be developed and construction personnel made familiar with the implementation of these. Further information on ground conditions and drainage designs would be provided in the final CEMP. Review of 1:10,000 scale watercourse mapping confirms that one new permanent watercourse crossing is required to establish the Proposed Development, as shown on **Figure 10.1** and detailed further in **Technical Appendix 10.2.** **BESS** The final design of the proposed BESS and the provision of fire water and its collection would be agreed with D&GC in consultation with SEPA, as part of the detailed design phase. This would allow the final

		design to reflect best practice and relevant design standards applicable at that time. This is typically secured by a pre-construction planning condition. The drainage system at the proposed BESS should be sized to manage firewater should, in the unlikely event of a fire, water be used to extinguish the fire. The drainage system would be sized in accordance with good practice measures, particularly GPP18. **Construction Environment Management Plan (CEMP)** Good practice measures would be applied in relation to pollution risk, sediment management and management of surface runoff rates and volumes. Prior to construction, section specific drainage plans would be produced. These would take into account any existing local drainage which may not be mapped and incorporate any section specific mitigation measures identified during the assessment. Measures would be included in the final detailed CEMP for dealing with pollution/sedimentation/flood risk incidents and would be developed prior to construction. This would be adhered to should any incident occur, reducing the effect as far as practicable. The final detailed CEMP would contain details on the location of spill kits; identify 'hotspots' where pollution may be more likely to originate from; provide details to site personnel on how to identify the source of any spill; and state procedures to be adopted in the case of a spill event. As identified in the outline CEMP, a specialist spill response contractor would be identified to deal with any major environment incidents. A wet weather protocol would be developed. This would detail the procedures to be adopted by all staff during periods of heavy rainfall. Toolbox talks would be given to engineering/construction/supervising personnel. Roles would be assigned to site staff and the inspection and maintenance regimes of sediment and runoff control measures would be adopted during these periods. In extreme cases, this protocol would dictate that work onsite may have to be temporarily suspended until weather/ground conditions allow.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
	Construction	**Water Quality Monitoring** Water quality monitoring before, during construction and post construction will be undertaken at the watercourses which drain the Site to ensure that none of the watercourses are carrying pollutants or suspended solids. Monitoring would be carried out at a specified frequency (depending upon the construction phase) as agreed with Dumfries and Galloway Council. Monitoring frequency would increase during the construction phase if remedial measures to improve water quality were implemented. The performance of the good practice measures would be kept under constant review by the water monitoring schedule, based on a comparison of data taken during construction with a baseline data set, sampled prior to the construction period. The monitoring programme would be secured by a pre-development planning condition to be agreed with Dumfries and Galloway Council. **Good Practice Measures (Pollution)** Good practice measures in relation to pollution prevention would include the following: • refuelling would take place at least 50m from watercourses and where possible it would not occur when there is risk that oil from a spill could directly enter the water environment; • foul water generated onsite would be managed in accordance with best practice and be drained to a sealed tank and routinely removed from Site; • a vehicle management plan and speed limit would be strictly enforced onsite to minimise the potential for accidents to occur; • drip trays would be placed under vehicles which could potentially leak fuel/oils when parked; • areas would be designated for washout of vehicles which are a minimum distance of 50m from a watercourse; • washout water would also be stored in the washout area before being treated and disposed of; • no direct or indirect discharges to watercourses without prior treatment in buffer zones or adjacent to proposed infrastructure using appropriate SuDS measures. These measures would be included in the drainage plans to be outlined in the final CEMP; • water would be prevented as far as possible, from entering excavations;

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		• procedures would be adhered to for storage of fuels and other potentially contaminative materials in line with the EASR, to minimise the potential for accidental spillage; and • a plan for dealing with spillage incidents would be designed prior to construction, and this would be adhered to should any incident occur, reducing the effect as far as practicable. This would be included in the final detailed CEMP. **Good Practice Measures (Sedimentation and Erosion)** Good practice measures for the management of erosion and sedimentation would include the following: • all stockpiled materials would be located outwith a 50m buffer from watercourses, including on up gradient sides of tracks, and stockpiles would be battered to limit instability and erosion; • where possible, stockpiled material would either be seeded or appropriately covered, minimising the area of exposed bare ground; • monitoring of stockpiles/excavation areas would take place during and immediately following extreme rainfall events; • water would be prevented as far as possible, from entering excavations through the use of appropriate cut-off drainage; • where this is not possible, water that enters excavations would pass through a number of settlement lagoons and silt/sediment traps to remove silt prior to indirect discharge into the surrounding drainage system. Detailed assessment of ground conditions would be required to identify locations where settlement lagoons would be feasible; • clean and dirty water onsite would be separated and dirty water would be filtered before entering the water environment; • if the material is stockpiled on a slope, silt fences would be located at the toe of the slope to reduce sediment transport; • the amount of ground exposed, and time period during which it is exposed, would be kept to a minimum and appropriate drainage would be in place to prevent surface water entering deep excavations; • a design of drainage systems and associated measures to minimise sedimentation into natural watercourses would be developed - this may include silt traps, check dams and/or diffuse drainage;

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
		• silt/sediment traps, single size aggregate, geotextiles or straw bales would be used to filter any coarse material and prevent increased levels of sediment. Further to this, activities involving the movement or use of fine sediment would avoid periods of heavy rainfall where possible; and • construction personnel, the Principal Contractor and EnvCoW would carry out regular visual inspections of watercourses to check for suspended solids in watercourses downstream of work areas. **Good Practice Measures (Water Abstractions)** If water abstraction for construction activities is required, a potential source will be identified at the detailed design stage of the project and following site investigation. An application for a EASR authorisation would then be made to SEPA and managed through the regulation of the EASR. Should a suitable source not be identified, a water bowser would be used. Good practice that would be followed in addition to the EASR regulations includes: • planning of water use so as to minimise abstraction volumes; • reuse of water where possible; • recording of abstraction volumes; and • control of abstraction rates to prevent significant water depletion in a source.
Chapter 11: Cultural Heritage and Archaeology	Pre Construction and Construction (Watching Brief)	With regard to further mitigation to be implemented as a condition to consent, the undertaking of an archaeological watching brief related to potential prehistoric remains, is to be employed to ascertain the absence/presence of unknown assets during any groundbreaking works on areas of peat. The West Scales Farmstead (SLR5) will be subject to demarcation and avoidance. A Site procedure toolbox talk will also be implemented for any works within 50m of the Farmstead. The precise scope of the mitigation works would be negotiated with the Dumfries and Galloway Council Archaeological Officer and an agreed mitigation program would be documented in an approved Written Scheme of Investigation (WSI).

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
Chapter 12: Site Access, Traffic and Transport	Pre Construction and Construction (CTMP)	**Construction Traffic Management Plan (CTMP)** A detailed CTMP would be agreed with Dumfries and Galloway Council, with input from Police Scotland and Transport Scotland, prior to the commencement of development. The detailed CTMP would include a number of measures to reduce the effects of the construction of the Proposed Development on local receptors and communities, including effects from turbine deliveries (abnormal loads). This would include details of any required temporary widening and other road improvement measures, together with detailed consideration of vehicle swept paths, loadings, structural assessments (where required), temporary street furniture removal details, dust and dirt management, and community engagement. An element of preparation of the detailed CTMP would be a trial run, which would be undertaken with AILVs transporting the wind turbine components, which would confirm the accommodation works needed (such as removal of street furniture).
	Construction (General)	**General** A reputable construction contractor would be procured, with an Environmental Policy and good environmental track record; • All HGVs delivering materials to the Site would be roadworthy, adequately maintained and sheeted as required; • Adequate traffic management and banksmen would be deployed for the movement of HGVs and abnormal loads; and • HGV loads would be maximised to ensure that part load deliveries would be minimised. Turbine deliveries would be undertaken in consultation with the relevant roads authorities (Dumfries and Galloway Council and Transport Scotland) and Police Scotland. Mitigation measures to reduce the potential for dust and dirt to make its way on to the local highway network would be undertaken including the cleaning of vehicle wheels during wet periods and the sheeting of aggregate lorries.

Chapter	Type of Mitigation Compensation or Enhancement	Mitigation, Compensation or Enhancement Measure
Chapter 14: Aviation	Construction and Operation	**Aviation Lighting** Infra-red lighting and visible aviation lighting would be included on the proposed wind turbines, in line with the Aviation Lighting Impact Assessment detailed in Technical Appendix 14.1.
Chapter 15: Other issues	Pre Construction and Operation	**Shadow Flicker** Prior to the operation of the first turbine, a Wind Farm Shadow Flicker Protocol will be submitted to and approved by Dumfries and Galloway Council. This would set out the protocol to be followed should a shadow flicker complaint be received from a receptor within the study area, and potential mitigation measures. Should a complaint be received, these mitigation measures would include programming the turbine's shadow flicker control module to minimise impacts at the receptor(s). Shadow flicker control modules, consisting of light sensors and specialised software, would be installed on the turbines that can prevent operation during periods when shadow flicker can be experienced at nearby properties. The installation of a programmable shadow flicker module would allow the control of turbines in order to eliminate shadow flicker. The correct operation of the installed shadow flicker control measures would ensure that there would be no impact from shadow flicker. The operation and performance of the shadow flicker control measures would be monitored on an ongoing basis.