



# Chapter 15

## Schedule of Commitments

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# Chapter 15

## Schedule of Commitments

### 15.1 Introduction

1. The Schedule of Commitments provides a summary of good practice, mitigation measures and commitments 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.
2. Good practice and mitigation measures have been integral to the design evolution of the proposed Development as described in **Chapter 3: Site Selection and Design**. A series of environmental and technical constraint design reviews were undertaken to minimise potential significant environmental impacts prior to finalising the design of the proposed Development. Areas which were examined in depth include landscape and visual constraints, sensitive habitats, cultural heritage as well as ecological and hydrological constraints.

### 15.2 Schedule of Commitments

3. The mitigation measures and best practice commitments in **Table 15.1** are those which would be applied prior to construction, during construction and during 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.

EIA Report Chapter	Matter / Effect Requiring Mitigation	Timing / Phase	Mitigation
<b>Chapter 4: Development Description</b>	Environmental Management	Construction	<p>As part of the construction contract, the Principal Contractor (PC) responsible for undertaking the construction works would adhere to a Construction Environmental Management Plan (CEMP) produced by ScottishPower Renewables (SPR). An Outline CEMP is provided in <b>Technical Appendix 4.1</b>. The CEMP shall describe how the PC will ensure suitable management of, but not limited to, the following environmental issues during construction of the proposed Development:</p> <ul style="list-style-type: none"> <li>• noise and vibration;</li> <li>• dust and air pollution;</li> <li>• surface and groundwater;</li> <li>• ecology and ornithology (including protection of habitats and species);</li> <li>• agriculture (including protection of livestock and land);</li> <li>• cultural heritage;</li> <li>• waste (construction and domestic);</li> <li>• details of the size, location and volumes to be extracted from borrow pits;</li> <li>• pollution incidence response (for both land and water); and</li> <li>• Site operations (including maintenance of the construction compound, working hours and safety of the public).</li> </ul> <p>SPR will engage an ECoW 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 PC will ensure construction activities are carried out in accordance with the mitigation measures outlined in this EIA Report and any planning conditions, and this will be monitored by SPR and the ECoW.</p> <p>To ensure all mitigation measures outlined within this EIA Report are carried out onsite, the CEMP will form an overarching document for all site management requirements, including:</p> <ul style="list-style-type: none"> <li>• Traffic Management Plan (TMP);</li> <li>• Construction Methodology Statement (CMS)</li> <li>• Pollution Prevention Plan (PPP) (including monitoring, as appropriate);</li> <li>• Site Waste Management Plan (SWMP);</li> <li>• Peat Management Plan; and</li> <li>• Water Management Plan (WMP).</li> </ul>
<b>Chapter 6: Landscape and Visual</b>	Visual Impact	Pre-Construction	The design of the proposed Development has evolved as part of an iterative process which has aimed to provide an optimal design in environmental, as well as technical and economic terms and landscape and visual mitigation measures have been a central consideration in the design process. The proposed turbine layout has been designed to minimise the effect on the surrounding landscape and visual resource. Therefore, the turbine layout design has evolved with the intention of presenting a simple, well balanced image of the proposed Development in the majority of views.
		Construction	Ground disturbance onsite would be restricted as far as practicable and any soil materials excavated would be retained on the Site for re-use on areas to be re-vegetated following the construction phase. The proposed borrow pits, construction compound and tracks have been considered throughout the design process to minimise landscape and visual impacts where possible. Reuse of existing tracks previously used during the construction of the Operational Kilgallioch Windfarm would minimise the amount of new and upgraded track required as part of the proposed Development, and so minimising further landscape and visual effects.
	Lighting	Operation	It is proposed to explore the possibility of using 'smart' aviation lighting (aviation obstruction lighting detection system) whereby the lights would only be switched on when low altitude aircraft approach them.
<b>Chapter 7: Hydrology, Geology, Hydrogeology and Soils</b>	General	Construction	<p>The following standard good practice measures are to be incorporated as embedded mitigation:</p> <ul style="list-style-type: none"> <li>• In order to gain additional, detailed information on the ground and groundwater conditions across the Site, pre-construction site investigations would be conducted. These investigations would focus on areas where construction is proposed to be undertaken and would allow the turbines and the associated infrastructure to be micro-sited away from unsuitable areas, such as areas of deeper peat or where there are significant groundwater flows. Any deep peat identified in the borrow pit search areas would be avoided for actual borrow pit excavation.</li> <li>• The investigations would also include targeted monitoring and assessment of the groundwater levels and flows beneath the Site. This would allow for micro-siting of the features of the proposed Development and to assist in the detailed design of infrastructure and selection of appropriate materials for use during the construction process.</li> <li>• Pre-construction baseline water quality sampling and analysis would be undertaken at the Tarf Water, Back Burn, Ha' Hill Strand, Monandie Burn, Loch Strand, and March Burn. A programme of regular monitoring and analysis of the water quality of the watercourses would be implemented throughout the construction period.</li> <li>• With specific reference to the SEPA guidance 'Prevention of Pollution from Civil Engineering Contracts: Special Requirements' (SEPA, 2006), the Principal Contractor would implement a Construction Environmental Management Plan (CEMP), agreed with SEPA, SNH and DGC prior to the commencement of construction activities, which contains a construction method statement that includes: <ul style="list-style-type: none"> <li>– a detailed breakdown of the phasing of construction activities;</li> <li>– a pollution risk assessment of the Site and the proposed activities;</li> <li>– identification of all Controlled Waters that may be affected by the works and temporary discharge points to these watercourses;</li> <li>– planning and design of appropriate pollution control measures during earthworks and construction;</li> <li>– storage of all fuel and other chemicals in accordance with best practice procedures;</li> </ul> </li> </ul>

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			<ul style="list-style-type: none"> <li>- ensuring that concrete batching is undertaken only at a designated area at the temporary construction compound, 100 m from the nearest watercourse;</li> <li>- management of the pollution control system, including dewatering of excavations (if required) away from watercourses;</li> <li>- contingency planning and emergency procedures; and</li> <li>- on-going monitoring of construction procedures to ensure management of risk is maintained.</li> <li>- All earthmoving works or similar operations would be carried out in accordance with BSI Code of Practice for Earth Works BS6031:2009.</li> <li>• Prior to construction, a detailed Drainage Strategy (DS) would be developed and agreed with SEPA and DGC. The DS would detail the Site drainage design, including the type of surface to be used for the access track, the soft engineering and habitat enhancement measures proposed to slow surface water flows and any necessary ponds, swales, cross drains and bunds, to ensure that runoff from hard surfaces and borrow pit excavations would be controlled. The DS would also detail the dimensions and final design of the one proposed open arch/bridge water crossing, seven proposed new culverts, and one proposed upgraded water crossing, which would be designed to maintain continuous flows.</li> <li>• All watercourse crossings, Site discharges, and temporary water abstraction would be regulated under the CAR licensing regime and all necessary licences would be sought from SEPA prior to the commencement of any operations onsite.</li> <li>• While it is acknowledged that best practice to minimise run-off would be to undertake construction and dismantling during the driest period of the year, given the location of the proposed Development in Dumfries &amp; Galloway, there are likely to be significant periods of rainfall throughout the year. Therefore, Site management would check the local weather forecast daily and prime all Site staff to ensure that everyone is aware of their responsibilities to maintain the pollution control system during wet weather or suspend sensitive operations during adverse weather conditions.</li> </ul>
		Pre-Construction	<p>The following considerations have been taken into account in the iterative design of the proposed Development, considered as embedded mitigation (mitigation by design):</p> <ul style="list-style-type: none"> <li>• Existing tracks have been incorporated into the Site design as far as possible, minimising the requirement for new road construction.</li> <li>• A 50 m buffer has been maintained around all surface watercourses, except where watercourse crossings are required. A 100 m buffer has been maintained around the Tarf Water.</li> <li>• A 50 m buffer has been maintained between all turbines and the Kirkcowan Flow SSSI/SAC. All of the turbines in nearest proximity to the SSSI/SAC are sited on areas of no or shallow peat, and none are within areas of peat which extend into the SSSI/SAC, in order to avoid hydrological connectivity with the SSSI/SAC and the potential for localised drawdown of the shallow water table in the vicinity of excavations to result in drying of shallow peat deposits within the SSSI/SAC.</li> <li>• The number of watercourse crossings has been minimised as far as possible.</li> <li>• Areas of deep peat have been avoided in siting all turbines except Turbine 8, which is sited on an area with measured peat depths just over 1 m in order to avoid other constraints. Deep peat areas have also been avoided as far as possible in siting all other proposed Development infrastructure, taking account of other environmental and technical constraints. The construction compound, operations building, the permanent met mast, and the majority of the borrow pit search areas are in areas of no identified deep peat. The majority of new access tracks also avoid areas of deep peat although total avoidance was not feasible.</li> <li>• No infrastructure is proposed in or near areas of identified medium or higher peat slide risk.</li> </ul>
	Peat	Construction	<p>Where it is not possible to avoid routing tracks over localised areas of deep peat, tracks would be floated to avoid the requirement for excavation of peat. As set out in <b>Chapter 4: Development Description</b>, this would involve placing of a geotextile membrane on existing topsoil and vegetation followed by aggregate layers. Floating roads would be designed to ensure suitability for Site traffic during construction and operation.</p>
	Peat	Construction	<p>Where excavation of localised, shallow peat is required for construction of turbines and other infrastructure, excavated peat would be re-used onsite as set out in <b>Technical Appendix 7.1: Outline Peat Management Plan</b>. The following peat management measures are proposed:</p> <p><u>Peat Protection ahead of Soil Stripping</u></p> <ul style="list-style-type: none"> <li>• The layout of the proposed Development has already taken into account constraints relating to sensitive areas. The proposed Development layout, including access track routes, would be marked on an Access Plan and would be demarcated on the ground by temporary fencing. Off-road tracking of heavy plant would not be permitted outside the demarcated area.</li> <li>• The Access Plan and the route of the access tracks would provide a designated controlled route and a permissible corridor within which service vehicles and plant can operate prior to peat and topsoil stripping. The purpose of the Access Plan would be to protect in situ peat in areas that are not affected by the proposed Development and to prevent unnecessary vehicle and plant tracking across these areas. The following rules would apply to the Access Plan:</li> <li>•</li> <li>• There would be no vehicle access to areas of the Site outside the area marked on the Access Plan (the proposed Development layout marked on the plan);</li> <li>• There would be no stopping of vehicles outside the area marked on the Access Plan;</li> <li>• Servicing or refuelling activities would only take place within clearly designated areas within the Access Plan, identified in the CEMP; and</li> <li>• Laydown of materials (either construction materials or waste materials) would take place only within designated areas within the Access Plan. There would be no laydown, unless identified in the construction drawings, of any type of materials either within the access route corridors or anywhere outside of designated areas. All laydown areas not already considered would be subject to a peat slide risk assessment prior to their designation.</li> <li>•</li> <li>• Access routes and working areas would be clearly delimited throughout the construction phase to ensure that peat compaction and damage in areas not directly involved in the works would be avoided. The construction works would be phased to ensure that peat was stripped in each part of the Site ahead of mineral subsoil.</li> </ul> <p><u>Handling of Excavated Materials</u></p>

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			<ul style="list-style-type: none"> <li>Excavation of soils would be undertaken in such a manner as to avoid cross-contamination between distinct acrotelmic and catotelmic horizons, where possible. The different horizons would be kept and stored separately for use at a later date.</li> <li>During and after excavation, the storage, haulage and reuse of excavated material would be planned to minimise material movement around the Site. Where possible, immediate reuse is preferred to temporary storage.</li> <li>Turves would be stripped and handled with care and stored with the vegetation side upward, such that damage to the living vegetation mat would be prevented or minimised as far as possible.</li> <li>To ensure the minimum amount of damage to peat during stripping activities, strict procedures would be adopted for heavy plant access, stripping and handling/transport of surface, intact, peaty turf, and subsurface wetter peat. Antecedent moisture conditions are critical for this and peat stripping and handling would not take place if there are heavy rainfall conditions.</li> <li>Peat stripping and excavation would generally follow the methodologies recommended for mineral soil by MAFF (2000) and Defra (2009). However, peat is a very different material from mineral topsoils and subsoils. For example, it is recognised that subsurface wet peat lacks strength and its consistency in many cases is that of a slurry. Hence, the stripping and excavation method(s) to be used in each part of the Site would be agreed in advance with the Environmental Clerk of Works (ECoW) and Geotechnical Engineer.</li> <li>Wherever possible, a 360o excavator would be used to permit stripping of large-scale peat turves, with their vegetation intact. Ideally these should be a minimum of 0.5 m deep and up to 1 m2. However, the depth and scale would depend on the depth, consistency and condition of the surface peat at each location and the plant used for stripping. Where practicable, the largest possible turves that allows for the turves to remain intact would be stripped. This assists in maintaining the structural integrity of each excavated turf.</li> </ul> <p><u>Temporary Storage</u></p> <ul style="list-style-type: none"> <li>Temporary storage may be required where material is not needed for immediate reinstatement. To minimise handling and haulage distances, where possible, excavated material would be stored local to the site of excavation and/or local to the end-use site where it would be required for re-profiling, landscaping or structural purposes. The exact storage locations would be agreed with the Geotechnical Engineer and ECoW prior to commencement of the main phase of works. Details would be provided on a plan to accompany the PMP and relevant Method Statements, for agreement with SNH and SEPA.</li> <li>Temporary storage locations would be appropriately located and designed to minimise impact to sensitive habitats and species, prevent risks from material instability and runoff into watercourses.</li> <li>Stripped materials would be carefully separated to keep peat and other soils apart and stored in appropriately designed and clearly defined separate piles. Peat would be excavated as turves which would be as large as possible and kept wet in order to minimise desiccation during storage.</li> <li>Stockpiles would be isolated from any surface drains and a minimum of 50 m away from watercourses, and stockpiles would not be located on areas of deep peat, in order to avoid peat slide risks associated with additional loading. Stockpiles would include appropriate bunding to minimise any pollution risks where required. Excavated topsoils would be stored on geotextile matting to a maximum of 1 m thickness.</li> <li>Peat would not be stockpiled or deposited permanently higher than 1 m, and turf would be stockpiled separately. Peat would not be stockpiled for more than six months, unless otherwise agreed with SEPA.</li> <li>Turves would be stored turf side up and would not be allowed to dry out. The condition of stored turves would be monitored by the ECoW.</li> </ul> <p><u>Monitoring</u></p> <ul style="list-style-type: none"> <li>There would be frequent, routine and regular inspections of peat in all stockpiles and temporary storage areas as part of the PMP audit process. Inspections would assess in situ peat physical conditions, integrity of containment and temporary drainage conditions, and they would seek to confirm that stockpile design and management was adequate to prevent erosion and peat slide. These inspections would take place weekly during stockpile creation and storage.</li> </ul>
	Dewatering	Construction	The requirement for dewatering would be minimised in all locations by timely and efficient excavation of the foundation void and subsequent concrete pouring and backfilling.
	Surface water drainage	Construction	Where topography dictates that working platforms are needed, these would be formed to ensure that surface water drains away from watercourses.
	Soils	Construction	To avoid unnecessary compaction and disturbance to Site 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. Further detail is provided in the <b>Technical Appendix 7.1: Outline Peat Management Plan</b> .
	Re-wetting	Operation	A Habitat Management Plan (HMP) has been developed in outline, given as <b>Technical Appendix 8.7</b> . This would be updated to a detailed plan and agreed with SNH, DEPA and D&GC prior to construction and would be implemented during construction and operation of the proposed Development. This would involve blocking of drains in an identified area of the Site to allow the drains to gradually infill naturally and result in re-wetting of peat deposits in the vicinity of drains, which had been dewatered at shallow depth. Although this is not considered to be a required mitigation measure with respect to hydrological, geological or hydrogeological effects, it has been committed to by the Applicant in order to provide biodiversity enhancement through improvement of blanket bog habitat.
<b>Chapter 8: Ecology and Biodiversity</b>	General	Pre-Construction	<ul style="list-style-type: none"> <li>Design mitigation has included the following measures: <ul style="list-style-type: none"> <li>Existing tracks have been used where possible, in order to reduce the footprint of the proposed Development and to limit the number of watercourse crossings as far as practicable. Some localised upgrading may be required to ensure a minimum 5 m running width, with local widening on corners;</li> <li>Any watercourse crossings will be designed to enable passage by fish, i.e. will avoid perched inverters that will be sufficiently large for fish passage and to avoid problems with flow rates being too fast for fish to swim against;</li> </ul> </li> </ul>



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			<ul style="list-style-type: none"> <li>- The presence of potential GWDTEs has informed the Site layout, which has maximised distances to such features as far as possible (see above). Although the potential GWDTEs have been assessed as either being non-GWDTE or having a low dependency on groundwater, these surface-water dependent habitats still present a potential engineering constraint and some precautions will therefore be taken, which may include cross-drains or culverts to maintain hydrological connectivity;</li> <li>- Electrical infrastructure cabling will be installed alongside tracks, wherever possible, to further minimise habitat loss;</li> <li>- Turbines have been sited at least 50 m from standing water and watercourses; and</li> <li>- Turbines and infrastructure have also been sited to avoid areas of blanket bog or heath habitat as far as practicable and the design also sought to minimise the take of areas of potential GWDTEs, even though these have subsequently assessed as predominantly non-groundwater dependent.</li> <li>• SPR will appoint a suitably qualified Ecological Clerk of Works (ECoW) prior to the commencement of any construction activities take place. The ECoW will be present and oversee all construction activities as well providing toolbox talks to all site personnel with regards to priority species and habitats, as well as undertaking monitoring works and briefings to relevant staff and contractors as appropriate.</li> <li>• A Species Protect Plan (SPP) will be produced and agreed prior to construction commences and then implemented during the construction period. The SPP will detail measures to safeguard protected species known to be in the area and will include for pre-construction surveys for protected species as well as ensuring the use of Best Practice measures during all construction activities (such as sensitive lighting, ramps exiting open excavations, etc.). The SPP will describe the process to be followed in the case that new protected species are recorded on Site that will therefore also need to be protected during construction works, as well ensuring the implementation of effective toolbox talks to raise awareness of site personnel to sensitive ecological receptors on Site.</li> <li>• In order to prevent pollution of watercourses within the Site (with particulate matter or other pollutants such as fuel), best practice techniques will be employed. These are outlined in Chapter 7: Hydrology, Hydrogeology, Geology and Soils and will include: <ul style="list-style-type: none"> <li>- For water crossings: buffer strips around sections of track adjacent to watercourse crossings; and bund and embankment features to be implemented;</li> <li>- For tracks: camber in track design; trackside drains, e.g. infiltration trenches with check dams; routine maintenance of tracks; cross drains at regular intervals along access tracks; and check dams will be installed immediately above cross drain inlets; and</li> <li>- General drainage: no direct discharges of water from works areas to existing drainage channels or surface watercourses; drainage will be directed to infiltration trenches, settlement swales or lagoons.</li> </ul> </li> <li>• Full details of construction mitigation measures will be provided in a Construction Environment Management Plan (CEMP) to be agreed with DGC, in consultation with SNH and SEPA, post-consent but prior to development commencing.</li> </ul>
	Habitats	Construction	<p>A Habitat Management Plan (HMP) will be implemented during the construction and operation phases that will focus on restoration of wet modified bog through the blocking of drains in areas where historical drainage channels are more concentrated. The HMP is outlined in <b>Technical Appendix 8.7</b> The following habitat management measures are proposed:</p> <p><u>Physical Intervention on Degraded Bog Habitats</u></p> <ul style="list-style-type: none"> <li>• Physical interventions are defined as measures which comprise mechanical treatment to an area of land.</li> </ul> <p><u>Drain Damming</u></p> <ul style="list-style-type: none"> <li>• There are approximately 31km of drains across the HMA which would benefit from being dammed in order to prevent further damage to the hydrological regime of the peat. SPR has successfully developed a technique to restore drained blanket bog, termed "wave damming" which has proven successful on a number of similar sites in Scotland (Photos 1 and 2). This method creates dams within existing drains to prevent water runoff, which helps stabilize the hydrology and support bog forming species such as Sphagnum mosses.</li> </ul> <p><u>Conifer Removal</u></p> <ul style="list-style-type: none"> <li>• There is a low density of non-native conifers across the Site mainly Sitka spruce which may have a negative impact on the bog, adding to the water loss from the Site. Regenerating conifers will therefore be removed from within the HMA by hand clearance using chain saws. Trees will be cut below the lowest whorl in order to prevent any future growth and will be left on Site.</li> </ul> <p><u>Monitoring</u></p> <ul style="list-style-type: none"> <li>• SPR have developed a protocol to monitor vegetation in relation to the Objectives set out in this HMP based on extensive experience of post restoration monitoring across other sites. Monitoring will be undertaken across a minimum of 30 permanent sample locations within the HMP area. At each permanent post a 1m radial quadrat will be used to collect the following information on target species noted in this HMP's Objectives: <ol style="list-style-type: none"> <li>1. Presence/absence of target species</li> <li>2. By eye cover targets of key metrics</li> <li>3. Height and offtake of Calluna</li> <li>4. Depth to water table (using fixed dipwell)</li> <li>5. A 20m transect to gather 3 pin hits of foliar and basal vegetation cover</li> </ol> </li> </ul>
Chapter 9: Ornithology	Birds	Pre-construction	<p>A Bird Protection Plan (BPP), devised in consultation with Dumfries and Galloway Council and SNH, will be put in place prior to the onset of construction activities. The BPP will describe survey methods for the identification of sites used by protected birds and will detail protocols for the prevention, or minimisation, of disturbance to birds as a result of activities associated with the proposed Development. The BPP would be overseen by the ECoW. The BPP will include a description of surveys to locate the nests or other key sites (e.g. roosts) of birds listed in Schedules 1 and 1A of the Wildlife and Countryside Act, 1981, in advance of construction works progressing within the Site. In the event that an active nest or roost of a Schedule 1 or Schedule 1A species is discovered within</p>

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			distances given by Ruddock & Whitfield (2007) (or within a 500 m radius of the nest for Schedule 1 species not listed), a disturbance risk assessment will be prepared under the BPP and any measures considered necessary to safeguard the breeding attempt or roost (e.g. exclusion zones or restrictions on timing of works), would be submitted to SNH for agreement before recommencing work. Should the nest of any other wild bird not listed on Schedule 1 be located, construction activities within 50 m of the nest site should be halted and the Ecological Clerk of Works (EcoW) informed immediately. A disturbance risk assessment should be undertaken and any measures considered necessary to prevent disturbance to the nest site be implemented. For some species breeding in some locations, no actions may be necessary but for others, buffers may be required around the nesting attempt to prevent unnecessary disturbance until the nest is no longer active.
	Hen Harriers	Pre-construction	During the design process, in addition to the buffers for construction periods, turbine and solar array locations were kept at least 200 m from the main hen harrier roost locations identified in surveys, to reduce the potential for disturbance during operation
<b>Chapter 10: Noise</b>	Construction related noise	Construction	BS 5228 states that the 'attitude of the contractor' is important in minimising the likelihood of complaints and therefore consultation with the local authorities would be required along with providing information to residents on intended activities.
		Construction	Noise during construction works would be controlled by generally restricting works to standard working hours, unless specifically agreed otherwise. Construction noise limits are typically set following methodology outlined in BS5228-1:2014 and in relation to standard working hours, this usually means 07:00 to 19:00 during the week and 07:00 to 13:00 on a Saturday with no work on a Sunday.
		Construction	The construction works onsite would be carried out in accordance with: <ul style="list-style-type: none"> <li>relevant EU Directives and UK Statutory Instruments that limit noise emissions from a variety of construction plant;</li> <li>the guidance set out in PAN1/2011 and BS 5228: 2009; and</li> <li>Section 61 of the Control of Pollution Act 1974 and Section 80 of the Environmental Protection Act.</li> </ul>
		Construction	Where construction activities relating to highways improvements are within 200 m of a residential property, contractors would be required to assess noise impacts during the construction phase and a noise control plan would be produced that includes: <ul style="list-style-type: none"> <li>procedures for ensuring compliance with statutory or other identified noise control limits;</li> <li>procedures for minimising noise from construction related traffic on the existing road network;</li> <li>procedures for ensuring that all works are carried out in accordance with the principle of "Best Practicable Means" as defined in the Control of Pollution Act 1974; and</li> <li>general induction training for Site operatives, and specific training for staff having responsibility for particular aspects of controlling noise from the Site.</li> </ul>
	Construction	With regards to blasting in stone extraction areas, the most appropriate way to address blasting noise is for a pre-blasting noise management programme to 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.	
	Operational noise	Operation	The adopted noise limit is met with candidate turbine assumed, and no specific mitigation is required to ensure that the limits are met. Operational noise would be controlled via planning conditions which set out noise limits for the proposed Development.
<b>Chapter 11: Archaeology and Cultural Heritage</b>	Location of Cairns	Construction	Each cairnfield would be the subject of a detailed transect survey and individual cairns would be marked, recorded and surveyed using GPS surveying equipment, such that a detailed record of the density of the distribution of the cairns and the extent of the cairnfield is made. The information gathered would then be used to determine the scope of further appropriate mitigation. Mitigation likely to be considered includes micrositing the infrastructure layout in these areas to avoid, as far as possible, individual cairns or groups of cairns and to ensure their preservation in situ or archaeological excavation of individual cairns or groups of cairns to a strategy and standard acceptable to DGCAS.
	Preservation in situ	Construction	Surviving heritage assets that are within 50 m of any proposed access track or turbine location and crane hardstanding would be marked out for avoidance during the construction phase. Marking out would be achieved using high visibility marker posts set 5 m from the edge of the identified heritage assets and these markers would be retained for the duration of the construction phase. Assets for marking out would be identified on the ground by a qualified archaeologist using the baseline information provided in <b>Technical Appendix 11.1</b> . Marking out of the assets would be undertaken by the appointed main contractor. <p>Heritage assets identified as requiring marking out are:</p> <ul style="list-style-type: none"> <li>Monandie Farmstead</li> <li>Dirvananie Township, Field System</li> <li>Dirvachlie Farmstead, Field System</li> </ul> <p>Archaeological investigation of individual heritage assets is likely to be required in the following locations:</p> <ul style="list-style-type: none"> <li>High Eldrig, Monandie Burn, Cairnfield</li> <li>High Eldrig, Cairnfield</li> <li>Belgaverie, Cairnfield</li> <li>The Gary, Enclosure, Structure</li> </ul>



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			In addition to the locations identified above, marking out of heritage assets for avoidance during the construction works is recommended in those cairnfields that would be directly affected by the proposed Development.
	Archaeological Investigations	Construction	Where it is not possible to avoid identified heritage assets of local or greater value (Low, Medium or High sensitivity), either through the design mitigation already implemented or resulting from the need to microsite elements of the infrastructure for other environmental consideration or for engineering reasons, alternative mitigation may be required.  Archaeological investigation of individual heritage assets is likely to be required in the following locations: <ul style="list-style-type: none"> <li>• High Eldrig, Monandie Burn, Cairnfield</li> <li>• High Eldrig, Cairnfield</li> <li>• Belgaverie, Cairnfield</li> <li>• The Gary, Enclosure, Structure</li> </ul>
		Construction	The archaeological potential of the Site has been assessed as being moderate to high, based on the results of the baseline study. Areas of sensitivity, where there is an elevated possibility that archaeological remains may be present, are likely to be those in and around one or more of the identified heritage assets: burnt mounds, cairns and medieval/post-medieval farmsteads. As a result, it is advisable that watching briefs should be undertaken in the following areas: <ul style="list-style-type: none"> <li>• High Eldrig Farmstaed</li> <li>• High Eldrig, Monandie Burn, Cairnfield</li> <li>• High Eldrig, Cairnfield</li> <li>• Belgaverie, Cairnfield</li> </ul> <p>The watching briefs would be required in order to ensure that any archaeological remains encountered during ground-breaking works are identified, recorded and investigated and reported in accordance with standard good practice. If significant discoveries are made during the archaeological monitoring works and it is not possible to preserve the discovered site or features in situ, provision would be made for the excavation where necessary, of any archaeological remains encountered. The provision would include the consequent production of written reports, on the findings, with post-excavation analysis and publication of the results of the works, where appropriate.</p>
	Damage to assets	Construction	Written guidelines would be issued for use by all construction contractors outlining the need to avoid causing unnecessary damage to known heritage assets. The guidelines would set out arrangements for calling upon retained professional support in the event that buried archaeological remains of potential archaeological interest (such as building remains, human remains, artefacts, etc.) should be discovered in areas not subject to archaeological monitoring. The guidelines would make clear the legal responsibilities placed upon those who disturb artefacts or human remains.
	Enhancement	Construction	A package of archaeological enhancement measures is proposed that would promote the archaeological interest of the Site to a wider public. The provision of a network of tracks across the Site would improve accessibility to this part of the Tarf Water landscape and to the historic landscape that is preserved within the Site. The SUW passes close by, to the west of the Site and it is proposed that the provision of publicity of the historic medieval/post-medieval farms within the Site would provide an opportunity for users of the SUW to avail themselves of the improved access provision to explore these well-preserved archaeological sites. Other local interest groups, such as local historical societies and schools could also be encouraged to explore the landscapes of their ancestors.
		Construction	It is proposed that a detailed survey of the whole of the moorland landscape that is enclosed by commercial forestry, from the Tarf Water and Eldrig Fell in the south to White Hill in the north would be carried out using Lidar technology. An airborne Lidar survey of the moorland would be commissioned with the aim to provide an accurate and detailed topographical record of the surviving archaeological remains of the historic landscape within this study area envelope.
<b>Chapter 12: Access, Traffic and Transport</b>	Construction Traffic	Construction	SPR has confirmed that it would consider the use of an onsite batching plant during the construction phase of the Site to help reduce HGV numbers on the A714.
		Construction	Advance warning signs and clear visibility splays will be used at the Site access to help advise road users of the increased numbers of turning traffic at the Site access junction.
		Construction	A Construction Traffic Management Plan (CTMP) would be prepared and agreed with the Council and Transport Scotland prior to construction works commencing.  The following measures could be included within CTMP during the construction phase. <ul style="list-style-type: none"> <li>• All materials delivery lorries (dry materials) would be sheeted to reduce dust and stop spillage on public roads;</li> <li>• Specific training, audit and disciplinary measures would be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;</li> <li>• Appropriate traffic management measures would also be put in place at the Site access junction to advise drivers to slow down and be aware of turning traffic;</li> <li>• Directional signage could be provided to enforce delivery routes;</li> <li>• Requirement for all drivers to attend an induction to include a safety briefing, the need for appropriate care and speed control, particularly in sensitive areas, identification of specific sensitive areas, identification of the specified route, and the requirement not to deviate from the specified route; and</li> <li>• A Travel Plan to encourage lift sharing /crew bus access to Site for construction staff.</li> </ul>
		Construction	A Traffic Management Plan detailing the operation of the convoy management would be prepared post consent. This would also include:

EIA Report Chapter	Matter / Effect Requiring Mitigation	Timing / Phase	Mitigation
	General		<ul style="list-style-type: none"> <li>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;</li> <li>Discussion with Transport Scotland on the potential for using the existing Variable Message Signage (VMS) network to provide additional information to users of the A75 between Stranraer and the M74. This would be helpful for ferry users along the A75 and other key trunk and distributor roads in the general area; and</li> <li>A communication dialogue between the various stakeholders.</li> </ul>
		Pre-Construction	To address any concerns expressed by the local community, it is proposed that a detailed convoy management plan is developed with Transport Scotland and DGC. This will include measures to provide hold points for convoys to ensure that inconvenience to other road users can be minimised.
		Pre-Construction	Information on the turbine convoys would be provided to local media outlets to help assist the public.
		Pre-Construction	In line with the scoping request by the Council, an agreement on wear and tear on road infrastructure caused directly by construction traffic would be established prior to construction commencing. The agreement will set out the area of review, scope and response requirement of any dilapidations that can be proven to be linked to construction traffic.
		Construction	Any street furniture that is removed on a temporary basis to enable AIL movements would be fully reinstated following the delivery period.
		Construction	An inspection of any traffic management measures and road signage around the Site access junction would be undertaken by the site manager on a regular basis. During the access junction construction works, there would be a daily road inspection and the public road will be kept clear of debris and mud.
<b>Chapter 13: Socio-economics, Tourism and Recreation</b>	Maximising Local Impact	Pre-Construction	SPR has organised 'meet the contractor days' in advance of constructing renewable energy developments. These events have the aim of developing the local supply chain and provide potential suppliers with information.
	Southern Upland Way Access	Construction	An access management plan would be drafted to ensure continuing access to the Southern Upland Way. This would set out any alternative access routes, which would be indicated through appropriate signage, reducing potential disruption to route users
<b>Chapter 14: Other Issues</b>	Aviation	Operation	As the proposed Development turbines would be in excess of 150 m to blade tip, they are required to be lit pursuant to Article 222 of the UK Air Navigation Order (ANO) 2016, with medium intensity (2000 candela) steady red aviation warning lights. Aviation lighting will be installed as soon as practicable on erected turbines.
		Operation	It is proposed that visibility sensors are installed on the proposed Development turbines in line with the 2017 CAA Policy Statement so that where visibility is restricted to 5 km or less from all the turbines in the proposed Development, the lights would operate at 2000 candela. Where visibility is greater than 5 km from all the turbines, the nacelle obstruction lights would be dimmed to 200 candela.
		Operation	In addition, SPR proposes to explore the possibility of installing an aircraft detection lighting system whereby the lights would only be switched on when aircraft enter the volume as described above around the turbines.
	Land Use	Operation	As a result of the construction and operation of the proposed Development, there would be a net loss of woodland area. SPR is committed to providing appropriate compensatory planting. The extent, location and composition of such planting would be agreed with Scottish Forestry, considering any revision to the felling and restocking plans prior to the commencement of operation of the proposed Development.
		Construction	Where appropriate, SPR will provide appropriate fencing to ensure that livestock do not access the construction site. The land not required for siting of the infrastructure of the proposed Development will be reinstated as agricultural grazing.

Table 15.1: Schedule of Commitments

Kilgallioch Windfarm Extension Project Team

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