

# 17 Schedule of Environmental Commitments

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# 17 Schedule of Environmental Commitments

## 17.1 Introduction

- 17.1.1 Best practice in EIA recommends the use of a Schedule of Environmental Commitments, which can act as a quick reference for anyone interested in the mitigation measures to which the Applicant has committed to implementing and upon which the assessment of residual effects presented in this EIAR has been based. It will be utilised by the Applicant's design team throughout development of the detailed design, and the appointed Contractors will be required to allow for, and ultimately implement, each of the measures in this schedule as a minimum at the construction stage.
- 17.1.2 Table 17.1 presents a Schedule of Environmental Commitments for the Proposed Development, listed according to the relevant environmental topic area.

**Table 17.1 - Schedule of Environmental Commitments**

Environmental Subject Area	Environmental Commitment	Timing
<b>The Proposed Development</b>		
Infrastructure	There will be a micro-siting allowance in all directions in respect of each turbine (50 m) hard-standing (50 m), construction compounds (50m), turbine laydown area (50 m), substation (50m), watercourse crossings and access track (50 m) in order to address any potential difficulties which may arise in the event that pre-construction surveys identify unsuitable ground conditions or environmental constraints. It is proposed that the final positioning of the infrastructure will be addressed through an appropriately worded condition.	Pre-construction
	The design of the substation and control room building is relatively flexible and where appropriate may be clad in local materials to match in with the surroundings. Technology continues to develop in the field of battery storage, therefore the design of that element of the compound is proposed to be secured by an appropriately worded condition.	Pre-construction
	Detailed site investigations prior to construction will be carried out at the borrow pit search locations to further confirm the rock type, rock characteristics and suitability, as well potential volumes to be extracted from the search areas. Following construction, the borrow pit(s) will be restored and reinstated to agreed profiles.	Pre-construction / Construction
Meteorological monitoring mast(s)	It is proposed that the final positioning, height and aviation lighting requirements will be addressed through an appropriately worded condition.	Pre-construction
Core Paths	Paths will need to be temporarily diverted during construction. Temporary diversions will be put in place for the construction period affecting each path section, with suitable alternatives clearly signposted. It is proposed that details of temporary path diversions can be secured by an appropriately worded condition.	Construction
	Core Paths will all be retained and/or upgraded as part of the Proposed Development, and they will be accessible throughout the operational life of the Proposed Development.	Operation
Public roads	Prior to construction, any required works to public roads will be undertaken, and appropriate highway safety measures will be agreed with South Lanarkshire Council (SLC), Transport Scotland and Police Scotland, with necessary signage or traffic control measures implemented throughout the construction phase on the agreed basis.	Pre-construction and pre-decommissioning

Environmental Subject Area	Environmental Commitment	Timing
Drainage design	A detailed drainage design will be undertaken and provided to SEPA and the Scottish Ministers prior to construction.	Pre-construction
Construction Environmental Management Plan (CEMP)	<p>The Applicant shall produce the CEMP in consultation with the Scottish Ministers, SLC, SNH, SEPA, WoSAS and Historic Environment Scotland prior to construction beginning.</p> <p>The CEMP shall include, but not be limited to, the following subjects:</p> <ul style="list-style-type: none"> <li>- noise and vibration;</li> <li>- dust and air pollution;</li> <li>- surface and ground water;</li> <li>- ecology (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>- pollution prevention strategy;</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>The Applicant shall provide the following for the above disciplines:</p> <ul style="list-style-type: none"> <li>- Details of the all the environmental mitigation which is described within the Schedule of Environmental Commitments and how the Contractor will implement this mitigation and monitor its implementation and effectiveness.</li> <li>- Details of how the Contractor will abide by the local and national legislative requirements e.g. CAR Regulations (Scottish Government, 2011).</li> <li>- Details of how the Contractor will implement and monitor construction best practice techniques e.g. the control of noise and dust.</li> <li>- Details of a Waste Management Plan which will include opportunities to reduce and re-use waste on site, recycling of waste which cannot be reused and disposal of waste to landfill.</li> <li>- Details on how the Contractor will liaise with the public and local landowners and how they will respond to any queries and/or complaints.</li> </ul>	Pre-construction and pre-decommissioning

Environmental Subject Area	Environmental Commitment	Timing
	The Contractor shall report on a regular basis to the Applicant on the implementation of the CEMP. The Contractor shall amend and improve the CEMP as required throughout the construction and decommissioning period.	Construction and decommissioning
Construction Traffic Management Plan (CTMP)	The Applicant shall produce a CTMP in agreement with the Local Authority prior to access to site being granted. The CTMP will detail the management of traffic to and from site, including abnormal loads and daily workers commute. It shall also include mitigation for impacts to public transport, local private access and public foot paths, cycle ways and bridleways where relevant. The Contractor and/or Developer shall amend and improve the CTMP as required throughout the construction and decommissioning period.	Pre-construction and pre-decommissioning
Operation Environmental Management Plan (OEMP)	<p>The OEMP will be developed in consultation with SNH, SEPA and SLC and will include but not be limited to:</p> <ul style="list-style-type: none"> <li>- details on the track, water crossings and turbine maintenance;</li> <li>- the control and monitoring of noise;</li> <li>- the control and monitoring of surface and groundwater;</li> <li>- a pollution prevention plan and a pollution incidence response plan;</li> <li>- details of how the Developer will abide by the local and national legislative requirements e.g. The Water Environment (Controlled Activities) (Scotland) Regulations 2011; and</li> <li>- a Species Protection Plan.</li> </ul>	Pre-operation
Public Access Strategy	<p>A range of public access and outdoor recreation opportunities also exist on the landholding that the Applicant is keen to deliver as part of the Proposed Development, this includes:</p> <ul style="list-style-type: none"> <li>- Developing and enhancing the Public Access Strategy and Heritage Trail commitments for the Douglas West Wind Farm</li> <li>- Creating a Visitor Welcome Area, car parking, and some (initially) basic visitor facilities</li> <li>- Design and implement a range of bike trails across the landholding</li> <li>- A range of waymarked walking routes</li> <li>- Signposting and visitor information about local cafes in Douglas and Coalburn</li> <li>- Plans for promoting an Adventure Tourism offering around Douglas and Coalburn</li> </ul>	Pre-Construction / Operation

Environmental Subject Area	Environmental Commitment	Timing
<b>Landscape and Visual</b>		
The primary mitigation adopted in relation to the Proposed Development is embedded within the design of the Proposed Development and relates to the consideration that was given to avoiding and minimising landscape and visual effects during the evolution of the Proposed Development layout.		
Mitigation through Design	<p>The design rationale adopted included:</p> <ul style="list-style-type: none"> <li>- avoid inconsistent turbine spacing, to minimise visual confusion and ensure a balanced / compact array from key views.</li> <li>- a review of whether turbines of 200 m could be accommodated at the site in a manner which would not be out of context with the overarching characteristics of the landscape.</li> <li>- appropriate offsets from all properties and settlements, have been maintained to ensure that no property would experience an overbearing visual impact such that it became an unattractive place to live.</li> <li>- alignment of the Proposed Development turbines with the existing Hagshaw Hill Extension, and other operational and consented turbines to ensure that the Proposed Development would appear as part of a harmonious overall array in key views.</li> <li>- taking all other engineering and environmental constraints into account.</li> <li>- considering the layout of other structures and ancillary features of the Proposed Development to utilise existing infrastructure as far as possible.</li> </ul>	Pre-Submission
Visual mitigation during operation	The turbines would be painted an off white colour with a low reflectivity semi-matt finish (or similar as agreed with the Local Planning Authority (LPA)), widely regarded to be the least intrusive in the landscape when seen against the sky in a host of weather conditions typically experienced within the UK.	Operation
Recreational Enhancement	Substantial investment is proposed in recreational enhancements across the Proposed Development site. This will be secured through development of a Public Access Strategy which seeks to facilitate the local community's aspirations to create an Adventure Tourism destination at junction 11 of the M74 which utilises local wind farm assets.	Operation
<b>Ecology and Nature Conservation</b>		
<p>Design mitigation is incorporated into the layout of the infrastructure and includes various ecological constraints in order that effects were avoided/minimised from the outset. This involved:</p> <ul style="list-style-type: none"> <li>▪ a minimum 50 m buffer for any infrastructure or construction activity around all watercourses, except where a minimum number of watercourse crossings are</li> </ul>		

Environmental Subject Area	Environmental Commitment	Timing
required to minimise effects on associated habitats and protected species; <ul style="list-style-type: none"> <li>▪ avoidance of blanket bog habitat for the location of turbines and infrastructure as far as practicable; and</li> <li>▪ avoidance of areas of potentially high GWDTs for infrastructure as far as practicable.</li> </ul>		
General	Arrangements for pre-construction ecological surveys will be conducted within 6 months of construction commencement and will be set out in the CEMP. The CEMP will be agreed with relevant statutory consultees prior to the commencement of construction.	Pre-construction and pre-decommissioning
Watercourses	Pollution prevention mitigation measures and arrangements for ecological monitoring during construction shall also be set out in the CEMP. The CEMP will be implemented across the whole site during construction. These measures shall be designed in order that the watercourses on site (and those into which the site discharges) are protected against pollution. These aspects of the CEMP will be monitored by a suitably qualified Ecological Clerk of Works (ECoW).	Construction
	The ECoW will also be required to advise and supervise, where appropriate, and will have the power to stop works at any stage should it be deemed necessary. The ECoW will provide tool box talks on the ecological sensitivities within the site to all site personnel prior to them commencing work.	Pre-construction, Construction
Disturbance reduction / Mammal Protection	Good practice measures will be implemented throughout the construction phases in order to minimise the risks associated with a construction site on all wild animals in line with SNH guidance.	Construction
	The Species Protection Plan (SPP) will be agreed with the Local Authority, in consultation with SNH, and agreed prior to construction commencement. The SPP will include measures to protect and reduce disturbance to species on site	Pre-construction and construction
Mitigation through enhancement during operation	The CEMP will contain provisions such as ecological monitoring that will be undertaken throughout the operational phase of the Proposed Development. Maintenance operations will follow the same safety and environmental procedures as for the construction phase.	Operation
Mitigation during decommissioning	Mitigation measures proposed for the construction phase of the Proposed Development will also be implemented for the decommissioning phase. These measures will be agreed with the planning authority as part of the CEMP approval process.	Decommissioning
<b>Ornithology</b>		
Mitigation during pre-construction	A CEMP will be agreed prior to construction commencing. This will be agreed with the Scottish Ministers and relevant statutory consultees. The CEMP will include details of mitigation, good practice construction methods, pollution prevention measures, compliance with ecological legislation and	Pre-construction



<b>Environmental Subject Area</b>	<b>Environmental Commitment</b>	<b>Timing</b>
	protection of biodiversity.	
	As part of the CEMP, a Breeding Bird Protection Plan (BBPP) will be produced and will be approved by the planning authority in consultation with SNH prior to implementation. The BBPP will detail the procedures to be followed to ensure reasonable precautions are taken to avoid disturbance to breeding birds on the Proposed Development site. Likely measures may include, but will not be limited to, appropriate buffer distances from confirmed nest sites, toolbox talks and ornithological monitoring.	Pre-construction
<b>Noise</b>		
Construction Noise	Control of working hours and best working practices to be implementation during construction.	Construction
Operational Noise	Operational monitoring will be agreed with SLC as required, to ensure compliance with noise limits imposed by planning conditions, with the option of selective constraint of turbine operation, if found to be a requirement.	Operation
<b>Historic Environment</b>		
Mitigation during construction	An archaeological watching brief be maintained during all ground-breaking work in the south of the site and along the access track. The watching brief will ensure that any impacts on recorded features is subject to appropriate levels of mitigation, while allowing for the identification of any previously unrecorded archaeological sites and ensuring these are appropriately recorded during site works.	Construction
	Prior to site works commencing, toolbox talks will be delivered to the appointed contractors. As a minimum, this will discuss specific historical and archaeological issues identified during the Cultural Heritage Assessment, including the location of heritage assets, buffer zones, areas requiring specific mitigation and potential for unrecorded archaeological features to survive in areas of the site.	Construction
	The exact scope of mitigation works will be agreed with WoSAS in advance of development. Proposals would be completed in line with a Written Scheme of Investigation (WSI) submitted to WoSAS for approval. The WSI outlines the methods and standards to be adhered to by the archaeological contractor. All works will be completed in accordance with Guidance Documents produced by the Chartered Institute for Archaeologists.	Construction
<b>Hydrology, Hydrogeology and Geology</b>		
Mitigation during pre-construction	In order to determine the ground and groundwater conditions across the site, pre-construction site investigations will be conducted. These investigations will focus on areas where construction is proposed to be undertaken and will allow the turbines and the associated infrastructure to be micro-	Pre-construction

Environmental Subject Area	Environmental Commitment	Timing
	sited away from unsuitable areas, such as areas of contamination or where there are significant groundwater flows.	
	The material contained in the bing, proposed as a potential source of construction materials, will be subject to appropriate environmental and geotechnical testing as agreed with SLC and SEPA to confirm its suitability prior to excavation and use. Should elevated contaminant concentrations be identified, representing a risk to water environment receptors, the material will not be used.	Pre-construction
	The pre-construction site investigations and observations during construction, will inform micro-siting in areas where highly localised peat has been identified. If the identified small areas of deep peat can be entirely avoided through micro-siting, this will be the preferred option. Any peat identified in the borrow pit search areas will be avoided for actual borrow pit excavation	Construction
	Where it is not possible to avoid routing tracks over localised areas of peat, it is considered that the areas in question are so small that floating tracks would be unwarranted. There may therefore be a requirement for localised excavation of peat at these locations, to be re-used on site as set out in the Outline Peat Management Plan.	Construction
Mitigation during construction	The appointed Contractor will undertake pre-construction baseline water quality sampling and analysis at the Poniel Water, Shiel Burn, Longhill Burn and Alder Burn and implement a programme of regular monitoring and analysis of the water quality of the watercourses throughout the construction period.	Construction
	<p>With specific reference to the SEPA '<i>Guidelines for Water Pollution Prevention from Civil Engineering Contracts</i>' and '<i>Special Requirements</i>', the Contractor will produce a CEMP prior to the commencement of operations which contains a construction method statement that includes:</p> <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 management of the pollution control system, including dewatering of excavations away from watercourses;</li> <li>• contingency planning and emergency procedures; and</li> <li>• ongoing monitoring of construction procedures to ensure management of risk is maintained.</li> </ul>	Pre-construction

Environmental Subject Area	Environmental Commitment	Timing
	All earth moving works or similar operations will be carried out in accordance with BSI Code of Practice for Earth Works BS6031:1981.	Construction
	All watercourse crossings and site discharges will be regulated under the CAR licensing regime and all necessary licences will be sought from SEPA prior to the commencement of any operations on site.	Pre-construction
	All concrete batching activities will be undertaken a minimum of 30 m from any watercourse or surface drain to minimise the risk of runoff entering a watercourse. The concrete batching area will have a contained facility for washing out and cleaning of concrete batching plant.	Construction
	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 site in South Lanarkshire, there are likely to be significant periods of rainfall throughout the year. Therefore, site management will 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.	Construction and decommissioning
	Where topography dictates that working platforms are needed, these will be formed to ensure that surface water drains away from watercourses.	Construction
	All fuel and other chemicals will be stored in accordance with best practice procedures, including being kept within a designated fuelling site located at a safe distance from existing watercourses and in appropriate impermeable bunded containers/areas, which will be defined within the CEMP. These will be designed to capture any leakage, whether from a tank or from associated equipment such as filling and off-take points, sighting gauges etc., all of which will be located within the bund.	Construction
	Oil booms and soakage pads will be maintained in all work areas and spill kits kept in all vehicles to enable a rapid and effective response to any accidental spillage or discharge. All construction staff will be trained in the effective use of this equipment.	Construction
	Construction vehicles and plant will be regularly maintained and all maintenance, fuelling and vehicle washing will be undertaken on appropriate impermeable surfaces away from watercourses in order to minimise risks of leaks to soil and surface waters.	Construction
	The temporary concrete batching area on site will have a micro-siting allowance of 50m in all directions. The Contractor will develop a method statement to address the batching, transport, transfer, handling and pouring of liquid concrete at foundations in order to minimise risks of spillage to soil and surface waters.	Construction

Environmental Subject Area	Environmental Commitment	Timing
	Cement, grout and unset concrete will not be allowed to enter the water environment. No operations involving concrete transfer between vehicles or into vehicles will take place within 30 m of watercourses and waterbodies.	Construction
	All vehicles used for delivery of concrete will only be washed out at locations to be agreed with SEPA. Excess concrete or wash-out liquid will not be discharged to drains or watercourses on site or at compounds. Drainage from washout facilities will be collected and treated or removed to an appropriate treatment point/licensed disposal site.	Construction
	The requirement for dewatering will be minimised in all locations by timely and efficient excavation of the foundation void and subsequent concrete pouring and backfilling.	Construction
	During the construction phase, construction staff will be instructed to maintain a sufficient distance from the burns located on site in order to ensure there is no incursion towards the burn.	Construction
	Where the required bottomless arch culvert crossings are being constructed, foundations will be set back to prevent impact on the integrity of the banking of watercourses. Detailed design will be included within a Construction Method Statement to be agreed with SLC and SEPA and detailed watercourse crossing designs will be regulated under the CAR licensing regime.	Construction
	Welfare facilities will either connect directly to the foul sewer, self-contained storage tanks or to a septic tank, subject to approval from Scottish Water and SEPA.	Construction
	If self-contained or septic tanks are to be used, these will be maintained and emptied on a regular basis by a suitably licensed contractor.	Construction
Mitigation during operation	Prior to construction, a detailed Drainage Strategy (DS) will be developed and agreed with SEPA and SLC. The DS will 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 will be controlled. The DS will also detail the dimensions of any proposed pipe culverts for watercourse crossings which will be designed to maintain continuous flows.	Operation
	Prior to construction, detailed design for the watercourse crossings, and the requirements for CAR authorisations or licences will be agreed with SEPA in order to ensure that fluvial geomorphological impacts are minimised during operation.	Operation

Environmental Subject Area	Environmental Commitment	Timing
<b>Traffic and Transport</b>		
Mitigation and monitoring measures for construction phase	<p>Even though the predicted impacts arising from the development have been assessed as being negligible, the following measures have been identified as good practice in terms of construction management in order to help minimise the impacts from the construction phase of the Proposed Development:</p> <ul style="list-style-type: none"> <li>• preparation and implementation of a Construction Traffic Management Plan;</li> <li>• use of the agreed access routes to the site will be enforced by the developer, and all principal and sub-contractors;</li> <li>• at locations where slow moving abnormal load traffic is considered likely to cause a road hazard it is recommended that escorted traffic is complemented by advance publicity and temporary signage where necessary;</li> <li>• wheel washing is proposed in the vicinity of the site compound to reduce the risk of transferring any mud onto the road and to suppress any dust;</li> <li>• all site vehicles will be parked off-road and as discretely as possible;</li> <li>• preparation and implementation of a Detailed Access Strategy to mitigate any potential conflict between site traffic during construction and the local path network;</li> <li>• once final loads and transport configurations are known, an updated review of maximum axle loadings on structures along the access routes;</li> <li>• similarly, an updated review of clear heights;</li> <li>• confirmation that there are no roadworks or closures that could affect the passage of the loads;</li> <li>• confirmation that there are no underground services on the access route that would be at risk from any abnormal loads; and</li> <li>• confirmation that the relevant Police / escort authorities are satisfied with the route being used and that the appropriate roads authorities have been further contacted regarding the proposed loads and route.</li> </ul>	Construction
	It is also recommended that a trial run be undertaken prior to delivery of abnormal loads, using the proposed load trailer and a scaffold to represent the load dimensions to confirm that the loads can be safely accommodated.	Construction (Pre-operation)

<b>Environmental Subject Area</b>	<b>Environmental Commitment</b>	<b>Timing</b>
Mitigation and monitoring measures for decommissioning phase	The mitigation measures set out for the construction phase will also be implemented, where relevant, during the decommissioning stage of the Proposed Development.	Decommissioning
<b>Socio-Economics, Tourism and Recreation</b>		
Local community and economy	The Applicant is committed to a local supplier approach and operates a Responsible Contracting Policy.	Pre-construction and Operation
	The Applicant has committed to providing annual community benefit funding of £5,000/MW of installed capacity and the mechanism to disperse the community benefit funding is to be agreed with SLC and local communities prior to commencement.	Operation
	The Applicant is also proposing the development and enhancement of the Public Access Strategy and Heritage Trail commitments that form part of the existing planning permission for the Douglas West Wind Farm	Operation
	The Applicant proposes that there will be a Shared Ownership offer made to the local community, up to a 5% revenue share in the Proposed Development.	Operation
	The Applicant proposes that the Community Benefit contribution from the Proposed Development would fund a full-time Local Development Officer who would be dedicated to the task of developing and delivering the Community-Led Investment Strategy for the area.	Operation
<b>Aviation, Radar and Telecommunications</b>		
Radar	The impacts on the NATS primary radars will be mitigated through the blanking of the affected radars and the provision of in-fill coverage from the unaffected Terma radar at Glasgow Airport.	Pre-construction
	The impacts on the Glasgow main primary radar will be mitigated through the blanking of the radar and the provision of in-fill coverage from the unaffected Terma radar at Glasgow Airport	
Aviation Lighting	The Proposed Development will have aviation lighting to mark it as an en-route obstacle to low flying aircraft. The lighting requirements will be agreed with the CAA with the lights meeting the requirements set out in in Article 222 of the UK Air Navigation Order (ANO). It is anticipated that approximately seven turbines will be lit, marking the development periphery and the highest points.	Construction and Operation
<b>Shadow Flicker</b>		
Mitigation during operation	None required	N/A