

Appendix 1.1: Schedule of Mitigation, Good Practice, Enhancement and Monitoring

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Introduction

This appendix provides a consolidated list of mitigation, good practice, enhancement and monitoring measures which have been identified through the appraisals in the Environmental Report (ER), and which will be implemented during construction and operation of the Scoop Hill 132kV Connection Project. Measures are presented on a topic-by-topic basis, reflecting the chapters of the ER. Where SPEN will commit to other mitigation/good practice in relation to topics not assessed in the ER (such as noise and traffic and transport), these are also included.

Table 1.1: Schedule of Mitigation, Good Practice, Enhancement and Monitoring

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
Chapter 2: Project Description			
<p>A Construction Environmental Management Plan (CEMP) will be prepared prior to the start of construction, detailing measures to avoid or mitigate potential effects associated with key construction activities. The CEMP will identify those responsible for the management and reporting on the environmental aspects during construction. The CEMP will be used to ensure a commitment to meeting all relevant conditions attached to the Section 37 consent and deemed planning permission. Adherence to the CEMP will be a contractual requirement of each contractor that SPEN appoints.</p> <p>The purpose of the CEMP is to:</p> <ul style="list-style-type: none"> ■ Provide a mechanism for ensuring that construction methods avoid, minimise and control potentially adverse environmental effects, as identified in the ER; ■ Ensure that good construction practices are adopted and maintained throughout construction; ■ Provide a framework for mitigating unexpected effects during construction; ■ Provide assurance to third parties that agreed environmental performance criteria are met; ■ Establish procedures for ensuring compliance with environmental legislation and statutory consents; and 	<p>Additional mitigation is set out as required for each topic below.</p>	<p>See Chapter 5: Ecology below for proposed biodiversity enhancements.</p>	<p>The Principal Contractor will be responsible for the continual development of the CEMP to take account of monitoring and audit results during the construction phase and changing environmental conditions and regulations.</p>

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
<ul style="list-style-type: none"> ■ Detail the process for monitoring and auditing environmental performance. <p>The CEMP will be updated when necessary to account for changes or updates to legislation and good practice methods throughout the construction phase. The CEMP will also be amended to incorporate information obtained during detailed ground investigations which will be undertaken post consent and prior to construction activities. Compliance with the CEMP (including procedures, record keeping, monitoring and auditing) will be overseen by a suitably qualified and experienced Environmental Manager from SPEN.</p> <p>The CEMP will contain the following documents, which the Principal Contractor and their sub-contractors will be required to adhere to throughout the construction process:</p> <ul style="list-style-type: none"> ■ A Pollution Prevention Plan (PPP); ■ Construction Method Statements (CMS); ■ A Water Protection Plan (WPP); ■ A Site Waste Management Plan (SWMP); ■ A Construction Traffic Management Plan (CTMP). ■ Bird Protection Plan (BPP) and Species Protection Plan (SPP). 			
Chapter 4: Landscape and Visual Amenity			
<p>The main strategy for minimising adverse environmental effects of the Scoop Hill 132kV Connection Project has been avoidance through careful routing and design, as discussed in Chapter 2: Routeing and Consultation and EIA Screening.</p>	<p>There are no specific additional mitigation requirements in terms of landscape and visual considerations, over and above the landscape-led routeing process that informed the OHL design including the reinstatement of disturbance associated with the construction of the Scoop Hill 132kV Connection Project. With landowner agreement and in consultation with</p>	<p>None proposed.</p>	<p>None proposed.</p>

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
	<p>Scottish Forestry (SF), SPEN may also seek to replant certain sections of the wayleave corridor and the wayleave corridor edge with low growing shrub species, sourced from local seed provenance, which are not deemed to put at risk the ongoing safe operation of the OHLs. These low growing species are unlikely to provide much mitigation in the way of visual screening of the project, but will help offset landscape effects associated with vegetation loss.</p>		
Chapter 5: Ecology			
<p>The following outlines the avoidance and embedded mitigation measures in relation to ecology that will be adopted by SPEN:</p> <ul style="list-style-type: none"> ■ Compliance with nature conservation legislation and policy. This will include adherence to Guidelines on Pollution Prevention and Construction Method Statements including relevant measures in relation to lighting, waste management and minimisation of vegetation removal required. These measures will be included in the CEMP. ■ Pre-construction surveys to be completed to confirm the status of protected species prior to works commencing. This will include bat activity surveys of those trees identified as having moderate – high bat roost potential that may require to be removed. ■ Production of a Species Protection Plan (SPP) to set out the approach to the monitoring of protected species prior to and during construction. This will include requirements for protective exclusion zones (e.g. 30m buffer zones around badger setts etc) and other measures to be adopted 	<p>If any new badger setts are discovered through pre-construction surveys, and the infrastructure cannot maintain the 30 m disturbance buffer through implementation of the 50 m Infrastructure Location Allowance (ILA), a NatureScot licence application may be required to allow for the legal disturbance (and potentially destruction) of setts. If the licensing process requires to be engaged, a Badger Protection Plan would be produced and included in the CEMP and would detail specific mitigation measures to minimise any potential impact on badger.</p>	<p>A Biodiversity Enhancement Plan (BEP) will be developed and implemented through a planning condition to provide meaningful habitat enhancement appropriate to the scale of Scoop Hill 132kV Connection Project. The key objective of the HMP will be to deliver SPEN's 'No Net Loss' objective, and, where possible, biodiversity enhancement (see Appendix 5.2).</p>	<p>SPEN will appoint an Advisory Ecological Clerk of Works (ECoW) to advise, monitor and report on compliance with relevant legislation, policy and project specific mitigation during construction.</p>

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
<p>in the vicinity of ecological receptors.</p> <ul style="list-style-type: none"> ■ The 'Infrastructure Location Allowance'(ILA) will be applied to allow micro-siting of wood poles and other ancillary infrastructure to avoid ecologically sensitive locations, such as: breeding shelters of protected species (e.g. badger main setts) or where works could cause severe damage to habitats of conservation concern (e.g. watercourse crossings. This will include applying a 20m buffer zone around water courses to retain bank and instream vegetation. This will be advised by an Ecological Clerk of Works (ECoW) during construction. ■ Where possible, the ILA will allow for the protection of sheltering and resting sites, should these be identified during pre-construction surveys. Where this is not possible, the NatureScot licensing system will be used to ensure works are completed in full compliance with welfare and conservation standards. Any micrositing required to protect sensitive species will again be advised by the ECoW during construction. ■ Where appropriate, vegetation will be protected during construction in localised locations via appropriate matting as directed by the ECoW. This will be particularly important within Beldcraig Wood but may also be relevant to works in proximity to the two water course crossings. These measures will protect existing root system and the seedbank. 			
Chapter 6: Ornithology			
<p>The appraisal of effects on ornithological receptors is made under the assumption that a Bird Protection Plan (BPP) is in place and implemented prior to construction commencing. The BPP will detail</p>	<p>None proposed.</p>	<p>None proposed.</p>	<p>None proposed.</p>

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
<p>protocols for maintaining compliance with relevant species protection legislation and best practice during the construction phase, to ensure that bird species and important sites for birds (nests, roosts, key feeding sites) are safeguarded from disturbance during critical periods.</p> <p>The BPP will be cognisant of relevant legislation, especially the Wildlife and Countryside Act 1981, taking account of the enhanced protections afforded to nest sites and to nesting and roosting birds listed in the Schedules of the Act. Further requirements which should be included in the BPP are:</p> <ul style="list-style-type: none"> ■ Timing of work: Where possible, tree-felling and ground clearance should be scheduled outside of the breeding bird season, but should also take account of winter roosts. ■ Pre-construction surveys: If work is scheduled to take place during the breeding bird season (April to August inclusive), pre-construction bird surveys should be undertaken within a series of distance buffers from construction works, with specific methods dependent on target species, affected habitat and the likely stage of the breeding cycle. ■ Nest protection: Protocols should be developed to ensure nests and other sensitive bird sites are protected from destruction, or to ensure that disturbance is prevented or minimised during construction activities. This will include species-specific stand-off distances and work protocols to ensure nesting birds are safeguarded. ■ Toolbox talk: The BPP should be overseen by a suitable experienced Environmental Clerk of Works who will oversee the delivery of 'toolbox talks' to contractors to make them aware of bird sensitivities, legislative requirements and relevant working protocols. 			

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
<p>Targeted surveys to identify the nesting locations of sensitive species should be undertaken, and if located, disturbance risk assessments should be prepared to ensure breeding activity is unaffected by construction works.</p> <p>The BPP will be overseen by an Ecological Clerk of Works (ECoW), with further detail on the definition of this role and implementation as part of an outline Construction Environment Management Plan.</p>			
Chapter 7: Cultural Heritage			
<p>The evolution of the design process has sought to minimise the potential for impacts on heritage assets resulting from direct physical effect. This has included a review of proposed route options and the position of wooden poles, as discussed in Chapter 2: Routeing and Consultation and EIA Screening.</p> <p>Construction best practice measures will be undertaken for the historic environment. Measures which will be adopted include:</p> <ul style="list-style-type: none"> ■ The clear and appropriate demarcation of heritage assets to prevent accidental damage during construction; and ■ The implementation of a working protocol should previously unrecorded archaeological features be discovered. 	<p>Mitigation in the form of archaeological monitoring (watching brief) via the provision of an Archaeological Clerk of Works (ACoW) is proposed during ground-breaking for the installation of the wooden poles. A targeted approach may be adopted to focus on areas of higher archaeological potential, i.e. in close proximity to known heritage assets. This approach and the archaeological monitoring will be undertaken in line with a Written Scheme of Investigation to be approved by the Dumfries and Galloway Historic Environment Service.</p> <p>For proposed developments of this type it is difficult to fully mitigate the impacts to heritage assets resulting from setting change, beyond those changes to the design identified as the Proposed Development evolves. No specific mitigation to reduce the potential effects of setting change to heritage assets has been identified.</p>	None proposed.	None in addition to ACoW.

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
Chapter 8: Hydrology, Flood Risk and Water Quality, including Private Water Supplies			
<p>The proposed route of the OHLs associated with the Scoop Hill 132kV Connection Project was located as far as reasonably practical from watercourses and other natural hydrological features. An infrastructure buffer of 50m from watercourses was achieved where possible. Watercourse crossings (of access vehicles for construction) have been avoided. The OHLs will cross three watercourses (River Anna, Beldcraig Burn and Howbreck Gill), but construction works (and wood pole locations) will be set back from the watercourses by an appropriate buffer (of at least 50 m where possible). Locations where a 50 m buffer could not be achieved are described in the 'Appraisal of Effects' section (See Chapter 8: Hydrology, Flood Risk and Water Quality, including Private Water Supplies) and additional mitigation provided if required. Stringing the OHLs across watercourses will not impact the bed and banks.</p> <p>In addition to the careful siting of infrastructure components, and given SPEN's commitment to, and prior experience of, implementing accepted good practice during construction and operation, and the current regulatory context, many potential effects on the water environment can be avoided or reduced.</p> <p>With respect to the current regulatory context, since the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR) came into force, CAR authorisation will be required in relation to a number of activities (e.g. engineering works in inland waters and wetlands). Based on constraints applied during the iterative design process, there are no works within the water environment and no new (or upgraded) watercourse crossings. SEPA's General Binding Rules (GBR) under the CAR Regulations will be followed during construction.</p> <p>Good practice pollution prevention and control measures will be put in place</p>	<p>The following additional mitigation will be put in place:</p> <ul style="list-style-type: none"> ■ The contractor will sign up to SEPA's Floodline flood warning scheme, which provides live flooding information⁴. No construction works will be undertaken in floodplain areas of the River Annan (e.g. poles 30, 31, 61 and 62) during periods of flood risk. ■ During construction, additional pollution protection measures will be put in place round construction working areas that are within 50 m of watercourses to prevent silt or other pollutants from leaving the construction area and entering watercourses (e.g. swales, silt fences). These locations are detailed above. The PPP will contain details of location specific additional mitigation. 	<p>None proposed.</p>	<p>An Ecological Clerk of Works (ECoW) will be on site throughout construction to monitor and assess the works and check the mitigations outlined in the PPP are adhered to and function properly.</p>

⁴ <https://www.sepa.org.uk/environment/water/flooding/floodline/>

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
<p>during forestry felling and construction, which will reflect best practice guidance and recognised industry standards (e.g. SEPA guidance, including their Guidance for Pollution Prevention (GPPs), CIRIA SUDS Manual¹ and control of water pollution guidance^{2,3}, amongst others), as well as SPEN's experience of constructing OHLs. As highlighted in Chapter 3: Project Description, a Pollution Prevention Plan (PPP) will be prepared and implemented through the CEMP.</p> <p>Forestry felling and removal will follow the good practice guidance and legal requirements set out in Section 6.7 (Forests and Water) of the UK Forestry Standard (Forestry Commission 2017).</p> <p>Many of the measures mitigate several potential effects (e.g., mitigation to minimise sedimentation and pollution such as Sustainable Drainage Systems (SUDS) which can also serve to attenuate surface water run-off). Embedded mitigation measures that are incorporated into project design will include:</p> <ul style="list-style-type: none"> ■ SuDS to minimise/attenuate surface runoff from temporary hardstanding and temporary tracks; ■ SuDS to reduce sedimentation and erosion; ■ SuDS to reduce pollution and accidental spillage; ■ Measures to reduce sedimentation, erosion, and pollution during forestry felling. <p>As a consequence, a number of measures are not considered to be mitigation as such, but rather an integral part of the design/construction process as part of good practice. Where it is considered that 'additional' and location specific mitigation is required to minimise certain effects, these are highlighted in the appraisal section of Chapter 8: Hydrology, Flood Risk and Water Quality, including Private Water Supplies.</p>			

¹ CIRIA: The SUDS Manual (C753) 2015

² CIRIA: Control of water pollution from construction sites: Guidance for consultants and contractors (C532) 2001

³ CIRIA: Control of water pollution from linear construction projects. Site guide (C649) 2006

Good Practice / Embedded Mitigation	Additional Mitigation	Enhancement	Monitoring
Noise			
<p>SPEN is committed to implementing accepted good practice measures for controlling construction noise, which may include the following, as appropriate:</p> <ul style="list-style-type: none"> ■ Restricted hours of construction work to avoid sensitive periods; ■ The use of equipment with appropriate noise control measures (e.g. silencers, mufflers and acoustic hoods); ■ The positioning of temporary site compounds as far as practicably possible from neighbouring residential properties; and ■ Additional good practice measures as set out in BS5228:2009. 	None proposed	None proposed	None proposed
Traffic and Transport			
No embedded design or good practice measures proposed.	<p>If considered necessary, a Construction Traffic Management Plan (CTMP) be prepared and implemented. This will identify measures to reduce the number of construction vehicles, as well as considering reducing or avoiding the impact of vehicles through construction programming / routing and identification of an individual with responsibilities for managing traffic and transport effects. The CTMP will also identify measures to reduce and manage construction staff travel by private car, particularly single occupancy trips. The CTMP will be agreed with Scottish Borders Council.</p>	None proposed.	None proposed.