

1. SCOPE

This Environmental Management Plan (EMP) details the legal and contractual environmental requirements for all projects within SP Energy Networks (SPEN). All contractors working on behalf of SPEN must comply with this document during the course of the works.

This EMP will remain a live document and the implementation of its provisions will be monitored by SPEN. Please ensure compliance to the Glenlee Pre-Enabling Works Environmental Technical Specification which refers and clarifies SPEN's expectations of all contractors (Appendix 1).

SPEN will update, review, revise and refine the Environmental Management Plan throughout the project so that it continues to be compliant with the company systems and current legislation, and to ensure the plan remains an effective tool for managing Environmental matters.

This is to ensure the construction phase is planned, managed and monitored in a way which enables works to be carried out with full awareness of the associated environmental risks. The benefit of effective forward planning should vastly reduce or where possible eliminate risk to the environment, in accordance with the SPEN Policy (Appendix 2).

Any revisions to the documents shall be uploaded by SPEN into Document Management System Projectwise and communicated to all interested parties in line with the SPEN document management procedure.

2. ISSUE RECORD

It is your responsibility to ensure you work to the current version.

Issue Date DD/MM/YYYY	Issue No.	Author	Amendment Details
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3. ISSUE AUTHORITY

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5. DESCRIPTION OF PROJECT

The pre-enabling works required at Glenlee Substation will allow the existing Newton Stewart/Glenluce No 2 circuit to be deviated ahead of the main enabling and civil works. The re-location of this circuit will allow space to be created on the south east elevation of the substation that will permit future construction access to be taken to the rear of the site without infringing safety clearances to the electrical plant.

The pre-enabling works will include demolition and removal of existing electrical plant along with associated infrastructure including foundations, 132kV cables, multicore and fibre optic cables, ducting and fencing.

Construction works will include the excavation and installation of new foundations, cable ducts, concrete trenching, palisade fencing and re-surfacing.

The majority of this work will be undertaken within the live 132kV compound and safe systems of work shall be agreed with the Scottish Power Senior Authorised Person (SAP) before work is allowed to commence.

This stage of the pre-enabling includes the installation of one set of cable sealing ends and associated bases and steel support structures at the end internal to the substation fence. The other end of the cable, external to the substation fence, shall be made safe by providing suitable (water tight) end caps, suitable earthing arrangements and being direct buried and backfilled by the Cable contractor, awaiting the new substation platform to be built.

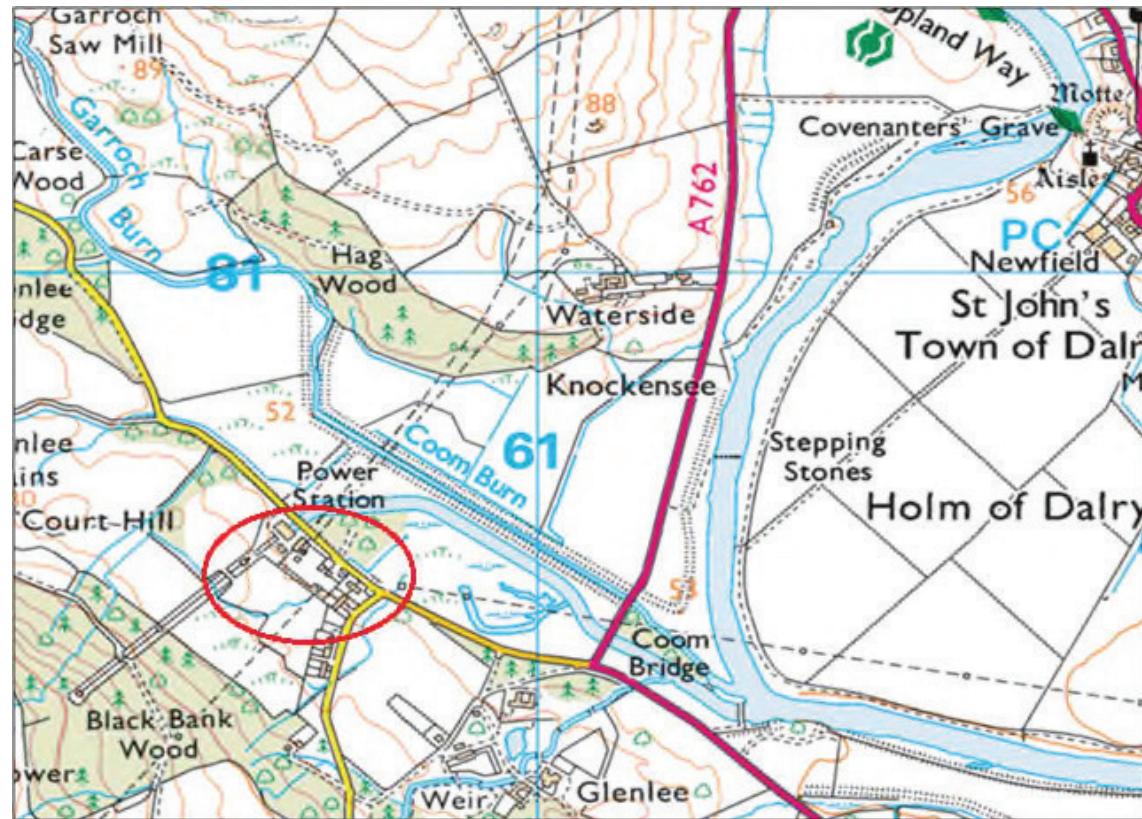
This summary provides only a general overview of the pre-enabling works and does not detail every element of construction or demolition required to complete this phase of the project.

It should also be noted that this 'pre-enabling works' Environmental Management Plan (EMP) is a separate document from the main enabling and civils works EMP and has been created only for the 'pre-enabling works' summarised above.

5.1 Location of site

Glenlee 132kV Substation is positioned next to Glenlee Hydro Electric Power Station, situated to the south west of St. John's Town of Dalry in Dumfries and Galloway. The existing substation, which can be accessed from the A762/U2S, sits on sloping ground that rises to the south and is bounded on one side by residential cottages and the power station on the other.

Figure 1. – Glenlee Substation Extension



Issued Environmental Documents

The EMP requires the contractor to understand and implement the requirements of the documents listed below. SPEN expect a high standard of environmental performance (over and above industry best practice) from all contractors. These can be seen at Appendices 1 - 7 of this document.

1. SPEN Technical Specification;
2. SPEN Environmental Policy;
3. ENDS Compliance Legal Register Report;
4. Pollution Prevention Plan Template;
5. Ecology Survey Calendar;
6. Survey Reports.
7. SPEN Environmental handbook (example TBT's)

This document should be read in conjunction with the above and all other documents issued with the tender pack.

6. COMMUNICATIONS

Regular communication between all parties will be essential for environmental management to be successful. There are a variety of communication channels and methods. In the first instance any communication at a site level should be done through the SP Energy Networks Site/ Construction Manager or SP Energy Networks Environmental Advisor. The SPEN Site/ Construction Manager or SPEN Environmental Advisor will then distribute the information to the relevant parties. All communications with regulators such as SEPA/SNH must also be communicated to SPEN and uploaded to Projectwise.

General communication shall take place on site daily to ensure the project is managed effectively

Direct actions taken by SP Energy Networks to communicate with the contractors:

Communication Tool	Details
Site Induction	All contractors attending site shall receive a site specific induction that addresses the site environmental risks, contact details and any site specific processes or procedures. Site Induction suitability will be inspected by SPEN environmental advisor.
Weekly Meetings	The site construction team will attend a weekly site meeting with all contractors. The minutes shall be recorded and distributed to all the contractors involved in the works. Environmental actions will be captured, discussed and closed out.
SORs (Environmental)	Safety Observation Reports shall include observations related to both good and bad environmental practice witnessed on site, a copy will be provided to the contractor and a copy will be held by SPEN. SORs will be discussed at the weekly meetings.
Email	SPEN must be included in all communications with stakeholders and regulators bodies, all communication must be uploaded to Projectwise. All emails that have a contractual implication shall be saved on Projectwise.
Site Noticeboard	Allocated space on a site noticeboard should be given to relevant environmental aspects. The notice board should include SPEN's environmental policy, any environmental alerts and a site plan detailing environmental controls. Besides that, the notice board shall include an organigram and emergency response team contacts. (See Table 2 below).
Environmental Folders on Projectwise	Up to date electronic copy or hard copy shall be available to reference by site staff and for inspection purposes.

Direct actions taken by Contractors to communicate with operatives and sub- contractors:

Communication Tool	Details
Site Induction	All contractors attending site shall receive a site specific induction that addresses the site environmental risks, contact details, and any site specific processes or procedures. Site Induction suitability will be inspected by SPEN environmental advisor.
Weekly Meetings	The site construction team will attend a weekly site meeting with all contractors. The minutes shall be recorded and distributed to all the contractors involved in the works. Environmental actions will be captured, discussed and closed out.
SORs (Environmental) or contractors equivalent	Reports shall include observations related to both good and bad environmental practice witnessed on site, a copy will be provided to the SPEN and shall be uploaded to Projectwise. SORs will be discussed at the weekly meetings.
TBTs	Site and task specific environmental toolbox talks shall be delivered once a week or a frequency otherwise agreed with the SPEN Environmental Advisor.
Daily Briefings	To communicate relevant sensitivities for the planned works on any day which should take account of seasonality, weather and also unexpected findings/required changes in working methods.
Environmental Notice Board	In a public area on site such as staff canteen. Contractors should display relevant environmental information for the site: <ul style="list-style-type: none"> • Ecological information; • SNH/SEPA Licences or registrations; • Refuelling procedure; • Spill response; • Emergency response plan and contacts including 24hour spill response contractor; and • Site layout showing designated refuelling areas, COSHH storage, waste storage/skips/spill kits.
Site signage	Indicating exclusion areas where ecological/archaeological/Private and Public water supplies/sensitive watercourses have been identified.

6.1 Environmental Objectives

SP Energy Networks have established a number of objectives which should enable project delivery, the actions required shall be completed by the SP Energy Networks construction team and the contractors on site. SP Energy Networks will monitor the actions during site Inspections and Audits.

Objective Type	Objective Details	Action required to meet the objective
Training	Raise awareness of Environmental Issues	<ul style="list-style-type: none"> • Provide an on-site environmental notice board displaying information on site ecology, pollution prevention, Emergency/ Spill response, Consents and/ or licenses (SEPA/ SNH etc.) • Carry out relevant Environmental Toolbox Talks related to work activities and

		<p>identified risks.</p> <ul style="list-style-type: none"> • Site specific briefings of site conditions and licences if required. • General housekeeping including good waste segregation. • Use/ storage of fuels, oils, chemicals etc. and spill prevention measures. • Environmental risks associated with working in proximity of watercourses/ drains etc. • Be aware of ecological factors such as bird nesting season (March – August inclusive) • Take account of effects of weather such as heavy rain and wind (dust issues). • Potential for noise and/or dust issues.
Compliance with SEPA guidance	Pollution prevention	<ul style="list-style-type: none"> • Ensure storage of fuel on site is in excess of 30m from any waterbody (spill kits placed on site – labelled with easy access) all plant to have spill kits kept within them. • Drainage/ surface water run off needs to be managed using sumps/ silt fencing to attenuate flow reaching local burns/ ditches/ watercourses. • Understanding of and compliance with SEPA CAR regulations (where appropriate). • Understanding of and compliance with SEPA pollution prevention guidelines.
Compliance with UK/ EU environmental legislation	Species and Habitat Protection	<ul style="list-style-type: none"> • Ensure sufficient ecological/ ornithological survey works have been undertaken to ensure legal compliance.
Compliance with UK/ EU Waste Regulations	Record all waste movements on the via an agreed SWMP (Site Waste Management Plan) template	<ul style="list-style-type: none"> • Update the SWMP monthly • Contractor should demonstrate a proactive approach to waste management, making use of the waste hierarchy (Section 10.2). • Reuse and recycling of materials must be considered for each waste stream. • Special consideration needed for any hazardous waste.

6.2 Project Inputs

All works should be carried out in accordance with the contract documentation.

6.3 Community Liaison

All community liaisons are managed by the client on any network project. Contractors must collaborate with the SP Energy Networks Community Liaison Officer in relation to matters that will have an impact on the local community. All correspondence for issue to the public must have prior approval of the SP Energy Networks Community Liaison Officer.

7. RESPONSIBILITIES

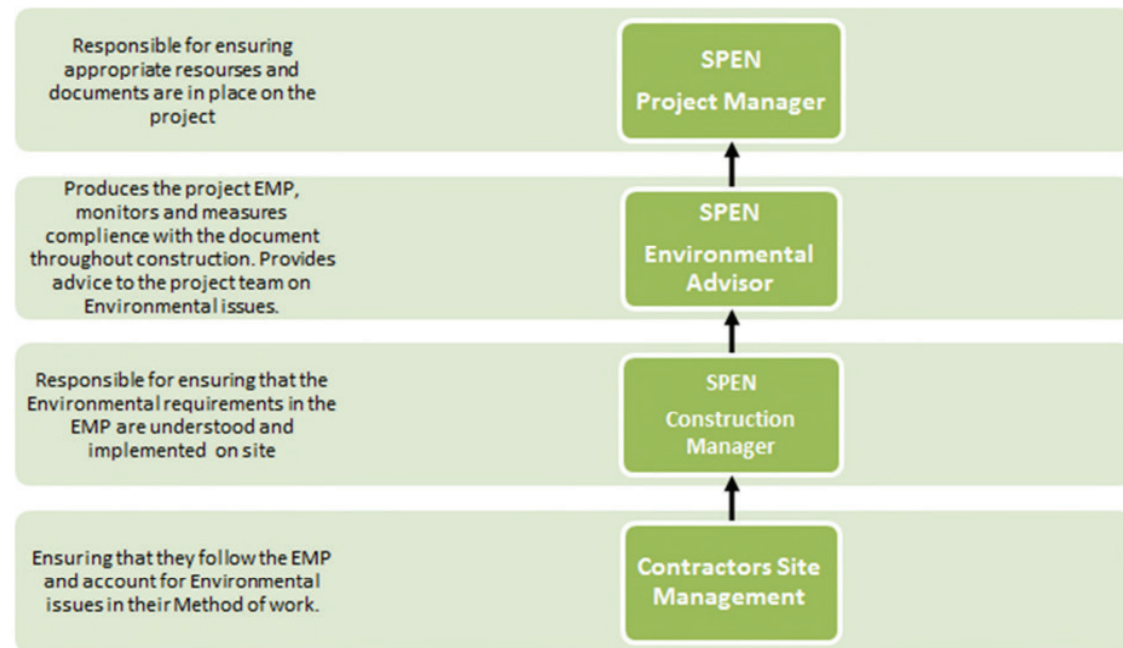
The environmental detailed responsibilities for SP Energy Networks are:

SP Energy Networks are responsible for the transmission and distribution networks within defined licence areas across the UK. Under such licences they are required under The Electricity Act 1989 (The Act) to “develop and maintain an efficient, co-ordinated and economical supply of electricity transmission”.

In doing so it is the responsibility of SPEN to obtain consent, in accordance with relevant legislation, from local or national government for the development of infrastructure. Under ‘The Act’ it is SPEN’s duty to consider the possible environmental impacts of the proposals and state what can ‘reasonably’ be done to mitigate any identified adverse environmental impacts.

SPEN will ensure that all projects are delivered in accordance with requirements of ‘The Act’ together with the relevant consent, conditions of that consent; and committed mitigation relevant to the proposals.

In terms of Environmental Management the organisation chart for the project is;



The environmental detailed responsibilities for SPEN Projects are:

Name/ Title	Responsibility
SPEN Projects Construction/ Site Manager	<ul style="list-style-type: none"> i. Regular liaisons between all parties on site to ensure adequate precautions are taken to minimise the impact on the environment. ii. Ensure the Environmental Management Plan is implemented and monitored by the Contractors. iii. Ensuring that all environmental incidents are reported and investigated where appropriate. iv. Ensuring site environmental inspections are performed and all issues raised are addressed promptly. v. Conducts regular site meetings and discusses any Environmental issues appropriate. vi. Ensure all the following factors are considered and appropriately actioned; <ul style="list-style-type: none"> a. The most appropriate order and method of working b. Allocation of responsibilities between personnel, and other organisations on site. c. The SPEN EMP is prepared and issued in a controlled way to all sites d. The protection of the environment, waste generation is minimised and all waste is disposed of in a safe and responsible manner, and is detailed in the Site Waste Management Plan (SWMP)
Environmental Advisor	<ul style="list-style-type: none"> i. Inputs into the preparation of the SPEN Environmental Management Plan assisted by the Construction Manager and Project Manager. ii. Reviews site inductions and provides information regarding site specific Environmental Aspects iii. Reviews Contractors’ Environmental documentation with particular emphasis environmental regulations and requirements. iv. Carries out regular inspections of the construction site. v. Advise the Construction Management Team on compliance with the statutory Environmental requirements. vi. Attends progress and coordination meetings.
SPEN Projects Document Controller	<ul style="list-style-type: none"> i. Ensure all SPEN Projects documentation is on Projectwise for all contractors to access ii. Manage permissions to Projectwise iii. Attend KOM to instruct/train Contractors in Projectwise (Upon PM request) iv. Set up and maintain folder structure on Projectwise

The environmental detailed responsibilities for the Contractor are:

Contractor Role	Responsibilities
Project Manager	<ul style="list-style-type: none"> i. Oversee the project to ensure compliance with the SPEN Environmental Management. ii. Ensure the Construction Manager/ Site Manager are aware of the requirements of the SPEN Environmental Management Plan and these requirements are carried out.
Construction/ Site Manager	<ul style="list-style-type: none"> i. Duty to ensure the compliance and implementation of EMP. ii. To ensure that the workforce is made aware of environmental risks relating to the Project. iii. To ensure that environmental incidents are reported to the company Helpline and client in expected timescales. iv. To ensure that environmental issues are included in site management meetings. v. To ensure that site environmental controls are regularly monitored and recorded. vi. To ensure environmental risk assessments are up to date and changes to the construction site posing environmental risk are recorded on the risk assessment. vii. To report environmental incidents to the helpline and Client (SPEN).
Engineers/ Site Supervisors	<ul style="list-style-type: none"> i. Duty to ensure the compliance and implementation of EMP. ii. To ensure that the workforce is made aware of environmental risks relating to the Project. iii. To ensure that environmental incidents are reported to the company Helpline and client (SPEN). iv. To ensure that environmental issues are included in site management meetings. v. To ensure that site environmental controls are regularly monitored and recorded. vi. To ensure environmental risk assessments are up to date and changes to the construction site posing environmental risk are recorded on the risk assessment.
HSE Manager	<ul style="list-style-type: none"> i. To provide guidance and advice regarding environmental controls and legislation. ii. To assist the Project as required by the Construction or Site Manager. iii. To investigate any environmental incidents that occur on the Project.

Environment Advisor/ ECoW (Environmental Clerk of Works)	<ul style="list-style-type: none"> i. To provide proactive, specialist guidance and advice regarding environmental controls, constraints and legislation specific to the project, in the form of Environmental Risk Assessment, Constraints planning, procedures, standard forms, site briefings and toolbox talks. ii. To comply with the SPEN Environmental Management Plan. iii. To provide additional technical support and solutions to the Project as required. iv. To organise, co-ordinate and manage pre-construction surveys in-line with advice from the Ecological/ Archaeological Survey reports provided by the client. v. To organise, co-ordinate and manage specialist consultants on site by providing a scope of works relevant to operations and in-line with programme. vi. To be fully aware of the project conditions/ commitments agreed by the client, facilitate adherence to all elements, and report activities in relation to conditions and constraints to SPEN Projects on a monthly basis. vii. To effectively communicate the environmental constraints/ risks specific to site, provide briefings/ TBTs relevant to works and in-line with ecological/ archaeological/ hydrological (and any other) recommendations. viii. To consult directly with regulators/ stakeholders (such as, but not limited to: SNH, RSPB, SEPA, Local Authorities) regarding situations that may require the acquisition of consents/ licences/ authorisations/ permissions/ comments, this includes applications and continued reporting to regulators throughout the project. All consultation with regulators will inform an SPEN Projects Environmental Advisor throughout the process and all types of contact with regulators must be documented/ evidenced and copies sent to SPEN Projects. ix. To organise and co-ordinate environmental mitigations on site in line with programme, ensuring inclusion of these activities in monthly report to SPEN Projects. x. To attend project meetings and effectively contribute to project discussions by indicating site sensitivities and management required. xi. To ensure environmental training of project team is current and training records are up to date. xii. To ensure the Emergency response plan is updated at least every 6 months or dynamically should issues arise, this should include details of an Environmental Response sub-contractor should an site emergency occur. xiii. To ensure the Site Waste Management Plan is updated and reviewed, including the legal compliance of Waste Transfer Notes and Consignment Notes from contractors/ sub-contractors xiv. To ensure that care is taken not to damage trees (including roots) and
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	<p>ensure TPO, Bat/ Red Squirrel/ bird and any other potential protected species have been checked prior to works and RPA (Root Protection Areas) are understood, communicated and British Standards are followed. Diseased trees are now common, Larch and Ash particularly. Any works close or requiring removal of a diseased tree will require specific mitigations to be in place and waste regulations adhered to. In addition any works close to or requiring removal of invasive weeds needs to be managed in accordance with legal requirements.</p>
xv.	To ensure the reinstatement and restoration of sites is fully understood, planned into programme and documented.
xvi.	To ensure site water management is planned ahead of operations to prevent pollution and in line with SEPA CAR Practical Guide.
xvii.	To conduct weekly inspections of sites pre-construction, during construction and post construction, ensure all inspections are documented; actions should be agreed with a timescale and upon completion signed off.
xviii.	To be available to organise and facilitate joint inspections/ audits with the client.
xix.	To investigate environmental incidents that occur on the Project, report findings and actions required including (if required) comments from regulators, lessons learnt from incidents should be briefed following investigations. Please ensure all incident investigations are sent to SPEN Projects.
xx.	Any other environmental issue not mentioned specifically above.

8. ENVIRONMENTAL MANAGEMENT

8.1 Regulatory Agencies and Interested Parties

The following regulatory agencies and interested parties have been identified as key stakeholders; this list is not exhaustive, with interests in the activities being undertaken in conjunction with the development of this site:

Regulator/ Interested Party	Responsibility
<p>SEPA's Pollution Hotline – 0800 80 70 60 (24 hour service)</p> <p>SEPA's Floodline service – 0845 988 1188 (24 hour service)</p> <p>SEPA Dumfries Office Rivers House, Irongray Road, Dumfries DG2 0JE</p>	<p>Environmental Regulator. Issue Waste Management Licenses and Exemptions from Waste Management Licensing, CAR Authorisations. Will use enforcement tools to ensure compliance with authorisation conditions issued by them and all other relevant environmental regulation.</p>

Tel: 01387 720502	
Scottish Natural Heritage Tel: 01387 720502	Issuing any protected species or protected area (e.g. SSSI / SPA /SAC) licences required for the project.
Dumfries and Galloway Council Tel: 0303 333 3000	Local Authority
Galloway Fisheries Trust Tel: 01671 403 011	Fisheries Information

8.2 Site Environmental Obligations

Client Obligations	Comply with the SPEN Environmental Management Plan.
Contractual Obligations	<p>All future surveys and licences to be arranged organised and managed by the contractor.</p> <p>Comply with the SPEN Environmental Management Plan.</p> <p>Provide a Pollution Prevention Plan for the works.</p> <p>Update the SWMP monthly.</p> <p>Report Environmental Incidents to SPEN Projects Environmental Advisor initially within 30 minutes of the incident with a follow up notification as soon as is reasonably practicable within 24hours.</p> <p>Provide an Environmental Risk Assessment for all works, make reference to site specific environmental management issues (including: ecology, surface water management, seasonal constraints).</p>
Specific Legal Requirements (for example, authorisations, consents and licences)	<p>NB - The contractor is responsible for preconstruction surveys and arranging any relevant licences (e.g. ecological, archaeological, or SEPA authorisations) or mitigation measures for the works.</p> <p>Ensure compliance with UK legislation regarding protected species and habitats prior to and during construction.</p> <p>Ensure all appropriate SEPA CAR Licences for required works are in place. For example:</p> <ul style="list-style-type: none"> Abstraction works (water abstraction for welfare facilities/ engineering activities such as concrete production or drilling); Engineering works (culverts, bridges, temporary diversions/ impoundments); and Bank works such as grey bank works (all hard landscaping/bank support).
Previous studies/ reports, e.g. EIA, etc.	<ul style="list-style-type: none"> Ecological Constraints Report – LUC.

Ongoing Studies	The contractor is responsible for any further surveys, licences, authorisations, consents upon contract award.
Contractors Obligations	<p>Reassess and evaluate mitigation measures for all environmental constraints with any changes to programme or working methods.</p> <p>Information provided from SPEN needs to be constantly reassessed and re-evaluated by the contractor, for all environmental constraints/ mitigation measures in line with any changes to programme or working methods. This process will be documented and available for inspection and SPEN environmental advisor informed.</p> <p>The Contractor's Environmental Advisor/ project team will provide the SPEN Environmental Advisor with a two week look ahead of working activities and:</p> <ul style="list-style-type: none"> • Provision of a forecast of site wastes • Provision of all environmental method statements/ briefings/ TBTs with attendance sheets. • Provision of an Environmental Emergency Response Plan • Emergency Spillage Contractor • Provision of fuel records for all plant/machinery/generators used on site listing: fuel type, volume (litres), period and comments. <p>Stone/Spoil– the removal of any stone/Spoil will meet all Waste Legislation criteria/ waste duty of care/ waste hierarchy. Any agreements with landowners must have the relevant SEPA exemptions in place prior to any movements of stone, all movements of waste must have a legally compliant waste transfer note/ consignment note.</p>

8.3 Pollution Prevention Plan (PPP)

The contractor will be required to provide at tender stage a Pollution Prevention Plan. This will detail how the associated environmental risks will be controlled and mitigated. There is a template/example to use as reference at Appendix 9.

This PPP needs to be written in accordance with this SPEN EMP and relevant construction industry/ regulator guidance as shown in sections 8.5.1-4 below.

Where it is not possible to be specific at this stage the contractor must provide examples of good practice used on other projects.

The PPP should be seen as a live document and therefore should be monitored/ reviewed continually.

The contractor will be responsible to ensure that the Plan is kept up to date and complied with.

The purpose of the PPP is to make sure that steps are taken to prevent potential for pollution arising from the site, the potential impacts of that pollution, and methods (and alternative methods) of preventing environmental harm occurring has been adequately considered.

8.3.1 Construction Aggregates

Provision of detail on the sourcing of suitable construction aggregates which must comply with SEPA GBR22 (see below).

No material that will or is likely to result in metallic, sulphide rich or strongly acidic polluted water run-off from such roads or tracks may be used in the carrying out of the activity.

Chosen aggregates should be free of excessive amounts of fines/clays. Mitigation for suspended solids should be provided.

8.4 Regulatory Bodies and Construction Industry Guidance

In addition to legal frameworks there are a number of good practice guidelines which are published by the construction industry (CIRIA) and regulatory bodies (SEPA) for construction projects. In January 2017 updated versions of some key SEPA PPGs for the construction industry were issued. All works carried out as part of this project should be carried out with reference to these. Please see the current, relevant SEPA guidance provided at NetRegs (www.netregs.org.uk).

8.4.1 SEPA Supporting Guidance Documents

- WAT-RM-08: Regulation of Sustainable Urban Drainage Systems (SUDS)
- WAT-RM-12: Regulation of Discharges from Water Treatment Works
- WAT-SG-12: General Binding Rules for Surface Water Drainage Systems
- WAT-SG-23: Engineering in the water environment – Temporary construction methods
- WAT-SG-75: Sector-specific guidance - Construction sites
- WAT-TEMP-10: Multiple Water Use Licence Template
- WAT-TEMP-21: Construction Site Licence

8.4.2 SEPA Pollution Prevention Guidance (PPGs)

- Pollution Prevention Guidance (PPG) NetRegs(netregs.org.uk) [and replacement series (GPP) – see PPG/GPP explanation]
- PPG 1: Understanding your environmental responsibilities - good environmental practices
- GPP 2: Above ground oil storage tanks
- GPP 5: Works and maintenance in or near water
- PPG 6: Working at construction and demolition sites
- GPP 13 Vehicle washing and cleaning
- GPP 21: Pollution incident response planning
- PPG 22: Incident response - dealing with spills
- PPG 27 Installation, decommissioning and removal of underground storage tanks

8.4.3 Construction Industry Research and Information Association (CIRIA) Manuals

- Control of water pollution from construction sites. Guidance for consultants and contractors (C532)
- Control of water pollution from linear construction projects. Technical Guidance (C648)
- Control of water pollution from linear construction projects. Site guide (C649)
- Drainage of development sites - a guide (X108)
- Guidance on the Construction of SUDS (C768)

- Site handbook for the construction of SUDS (C698)
- Sustainable Drainage Systems - Hydraulic, structural and water quality advice
- The SuDS Manual (C753)

8.4.4 Published by CREW – Scotland’s Centre of Expertise for Waters

- Rural Sustainable Drainage Systems: A Practical Design and Build Guide for Scotland’s Farmers and Landowners.

8.5 ENDS Compliance Legal Register

SPEN have produced a compliance legal register which lists all of the legislation which may pertain to the project before, during and post construction. This can be seen at Appendix 3.

8.6 Main Aspects

The table below details the known key environmental constraints/ aspects associated with the project. All contractors will use this as a live document, review regularly and update with progress and further constraints. The mitigation and management controls detailed are not exhaustive and should be used as a baseline rather than a complete control plan.

The main aspects are detailed below.

Significant Environmental Aspect	Mitigation & Management Controls
Vegetation Clearance	Vegetation clearance should take place before end of February (nesting season) - ecology survey/SNH licence/guidance may be required. The contractor is responsible for preconstruction surveys and arranging any relevant licences or mitigation measures for the works. Any clearance undertaken during months of March to September (nesting season) must be done under the supervision of an Ecological Clerk of Works, this may result in programme delays if protected species are found. Relevant TBT to be issued to all on site – attendance sheet signed.
Archaeology	There are currently no Archaeological issues within the grounds of the substation. Maintain vigilance when new or unexpected excavations become necessary, especially when required on previously undisturbed ground. Stop work and inform your team leader/site manager if you think you have discovered archaeological features. Protect the site by fencing it off.
Soil Storage/ Stockpiling	Follow all identified mitigation requirements for the location to be stripped. Strip, segregate top soil from sub-soils and store within the identified site working areas for reuse. Locate soil storage bunds away from watercourses (30m). Form bunds of no more than 1.5m and design to shed water. Check the need for measures to reduce dust and potential nuisance Return soils to their original location. Please reference Tool Box Talk.

Concrete	The washing out of any concrete mixer & associated chute, tools or equipment should be carried out in a designated area away from drains and watercourses. Delivery drivers should be made aware of the requirement on arrival at site. Wash down activities will take place in designated areas which may have different set-ups at different sites –use of an RCW Skip, lined skip or lined pit. Relevant TBT to be issued to all on site – attendance sheet signed. Please refer to SPEN Environmental Handbook.
Surface Water Management	The following guidelines should also be adhered to: The potential pollution of drainage systems, watercourses and groundwater is to be prevented during the contract. Surface water drains and the foul water systems are to be clearly identified on the site prior to any works being carried out. <ul style="list-style-type: none"> • Training will be given to key employees in the use of spillage containment. This includes the locations of the equipment, and the means by which they are to be disposed of following use; and • Silt fencing/ hydro dams, cut off ditches or settlement ponds are to be used to prevent water pollution entering watercourses/ and surface water drains Please consult SEPA CAR Practical Guide at all times when working near a watercourse as authorisations may be required – it is the contractors’ responsibility to consult with SEPA and apply for authorisation where required. General Binding Rules (GBR 10, 16, 9) should be consulted as a minimum for all sites near a watercourse: SEPA GBR 10: Discharge of surface water runoff from a surface water drainage system to the water environment from construction sites, buildings, roads, yards and any other built up areas. SEPA GBR 16: Direct Discharges of pollutants into groundwater as a result of construction or maintenance works in or on the ground, which come into contact with groundwater. It is recommended in the CAR guidance that when undertaking SEPA GBR 10, GBR 9 should also be followed. GBR 9: Operating any vehicle, plant or equipment (machinery) when undertaking GBR 10 (and others). All watercourse crossings will be considered against the CAR Practical Guide and level of authorisation justified. SPEN Projects will require a watercourse crossing schedule update on a monthly basis. SPEN Projects will be informed of any consultation with SEPA and included in any correspondence.
Water or Ground contamination	The potential pollution of drainage systems, watercourses and groundwater is to be prevented during the contract by adhering to the following guidelines:

<p>from Spillage or Mud/ Silt</p>	<ul style="list-style-type: none"> All works in and within 10m of water course will be carried out within SEPA guideline and guidance. The banks of watercourses are to be protected from damage and contamination using; silt fencing, cut off ditches, sumps etc. Machine operators will carry out daily checks this is to include Hydraulic lines; A spill kit of reasonable capacity is kept close to the work; A boom could be placed across the watercourse as a preventative measure at appropriate times; and Abstraction/ de-watering of excavations should be in excess of 10m from a watercourse (if highly sensitive or prone to flooding this distance may need to increase. The de-watering exercise should be through a silt protection capture layer such as a siltsock, siltbuster, sump/ silt fencing – grassy area with landowner permission to pump. It is the contractors' responsibility to assess the volume discharged is in line with SEPA guidance GBR 15 and Abstraction Licence parameters are adhered to. <p>Please refer to Land Use Planning System SEPA Guidance Note 31: Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems.</p> <p>Relevant TBT to be issued to all on site – attendance sheet signed.</p>
<p>Access Installation</p>	<p>Provision of access road design to include and take account of installation of cut of ditches, hydro dams, sumps, silt fencing to manage flow pathways and control silt run off at all times during construction, this includes monitoring the effectiveness of the prevention measures and adapting to changes in flow rate and disturbance.</p> <p>All aggregate or stone removed from access tracks are regarded as waste. This must be removed from site via a licenced waste carrier. Disposal/reuse/ recycling can only take place at a licenced or exempt facility and all documentation (waste transfer note, valid exemption/ licence for a relevant activity) must be in place prior to removal from site and recorded in the Site Waste Management Plan (SWMP).</p>
<p>Reptile potential</p>	<p>No reptiles were incidentally observed during the survey and no hibernacula were located.</p> <p>Further survey for reptiles following standard guidance is recommended for all dry stone wall dismantling works. These surveys should utilise artificial refugia, and take place between March and October (ideally September).</p> <p>The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works.</p> <p>Scrub to be progressively cut, trimmed and chipped to remove cover. Clear areas are to be left for at least 24 hours prior to soil stripping.</p> <p>Any area of rocks, brick rubble or other debris that have been present for over six months are to be destructively searched before the start of construction in</p>

	<p>that area.</p> <p>Relevant TBT to be issued to all on site – attendance sheet signed. Please refer to SPEN Environmental Handbook</p>
<p>Invasive Non-native Species</p>	<p>No invasive non-native species were recorded during the course of the survey. Please refer to Appendix 6 - Ecological Constraints Survey for further details.</p> <p>However, if invasive non-native species are encountered during works Stop all work within 7m of the invasive and contact your team leader/site manager for instructions. Fence an area 7m from the nearest plant to prevent access.</p> <p>Chemical control of giant hogweed is most effective – spraying can start on plants above 1 metre high from March and throughout summer. More than one application is needed and follow up spraying will be required to kill seedlings in subsequent years.</p> <p>Do not: Move soil that may contain seeds or other plant material without specific instructions; Store any removed plant materials within 30m of a watercourse.</p>
<p>Bat potential</p>	<p>Trees recorded in the south and west of the substation were considered to have some level of bat roost suitability. Further surveys will be required on those which will be affected by the development.</p> <p>A potential bat roost was recorded in the eastern building located behind an external light figure with bat droppings recorded beneath this. If any of the areas highlighted with bat roost potential are to be impacted by the works, then the environmental advisor and an ecologist should be notified. The trees should be inspected by an ecologist prior to removal. In the event that a bat or bat roost is found or suspected, the work must stop immediately and an ecologist contacted.</p> <p>The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works. Relevant TBT to be issued to all on site – attendance sheet signed. Refer to SPEN Environmental Handbook.</p>
<p>Tree Root Protection</p>	<p>All working activity close to trees should follow NJUG guidelines – root protection areas should be demarcated and any excavations close to a tree or under tree canopy should assess the methodology prior to construction.</p> <p>Ensure Tree Preservation Orders have been checked with the Local Authority and consent granted if required.</p> <p>Please see Root Protection TBT.</p>
<p>Nesting Birds</p>	<p>Nesting birds habitat is found adjacent to the proposed works. A number of common lowland species were recorded singing and holding territories.</p> <p>Preconstruction breeding bird surveys are recommended prior to any works commencing in the bird breeding season of March to August.</p> <p>The contractor is responsible for pre-construction surveys and arranging any relevant licence or mitigation measures for the works.</p> <p>Specific guidelines/ risk assessments/ licences and consultation with SNH and specialist ornithological support may be required.</p>

	<p>All wild birds are protected by law under the WCA. Recent and significant changes have been made to the protection of wild birds in Scotland by The Nature Conservation (Scotland) Act 2004. It is an offence to intentionally or recklessly disturb any wild bird listed while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.</p> <p>The nesting season is designated March to August inclusive and all nesting birds are protected. If any nests are identified at any time works should stop immediately and contact should be made with the Environmental Advisor.</p> <p>Scrub, Hedgerows & Trees should be removed out with the nesting season. If it is required to remove them within the nesting season then this can only be done following a survey to confirm the absence of nesting birds. Consultation and acquisition of licences from Scottish National Heritage SNH to disturb or relocate protected species may be required.</p> <p>Relevant TBT to be issued to all on site – attendance sheet signed.</p> <p>Please refer to SPEN Environmental Handbook.</p>
Dust Management	<p>The following measures should be taken to minimize dust generation:</p> <ul style="list-style-type: none"> • Material discharge heights will be kept to a minimum; • Haul roads will be damped down during dry and windy conditions; • Vehicle speeds will be restricted; and • Keep stockpile levels less than 2 metres. <p>Relevant TBT to be issued to all on site – attendance sheet signed. Please refer to SPEN Environmental Handbook.</p>
Re-fuelling	<p>Refuelling should be considered prior to works commencing to prevent refuelling during access track construction and possible spillage into nearby habitat and water courses.</p> <p>Standard practice:</p> <ul style="list-style-type: none"> • No generators or similar plant and machinery shall be used within 30 metres from appropriate watercourses and water bodies; • Machines will be refuelled minimum of 30 metres away from water courses. Outside edge of all permanent non-mobile storage facilities for oil, fuel, etc. shall be at least 100m away from appropriate watercourses and water bodies; • Records to be kept of all fuel consumption; and • All plant will have a spill kit and plant nappy.
Excavations and dewatering	<p>Ensure that excavations are managed, especially where the potential for encountering groundwater has been identified. Strategies to deal with water, either groundwater or ingress of water due to heavy rain, should be in place. Sufficient equipment (e.g. pumps) and mitigation (e.g. silt mitigation/fencing) should be on hand to deal with dewatering. Any strategy should also deal with where water will be pumped to. Water considered to be contaminated with silt/oils etc. CANNOT be pumped straight into the environment without primary and potentially secondary treatment.</p> <p>Relevant TBT to be carried out on site – attendance sheet signed and uploaded to Projectwise.</p>

The contractor must ensure they have adequate measures in place to effectively manage all of the aspects detailed in the register, and any additional aspects that they may bring to site via their method of work. This is not an exhaustive list constraints need to be re-evaluated throughout the project.

9. TRAINING REQUIREMENTS

SPEN expect the contractors to utilise their electronic document management System Projectwise during the works. All contractors shall request any training on this database via the SPEN construction manager if required.

Records of specific environmental training shall be maintained at the main site office. Task specific environmental training will be given when required.

1.1 Environmental Toolbox Talks (TBTs)

A variety of environmental issues are anticipated on the project, these are area and task specific. Toolbox talks associated to each anticipated issue should be read by staff before work on site commences. Environmental TBTs MUST be provided once a month as a minimum but more frequently when task/sensitivity of location require it. Attendance records must be kept on site and maintained and uploaded to Projectwise. Please provide a list of TBTs which is anticipated will be delivered.

Please reference SPEN Environmental Handbook and Tool Box Talks in all instances.

10. WASTE MANAGEMENT

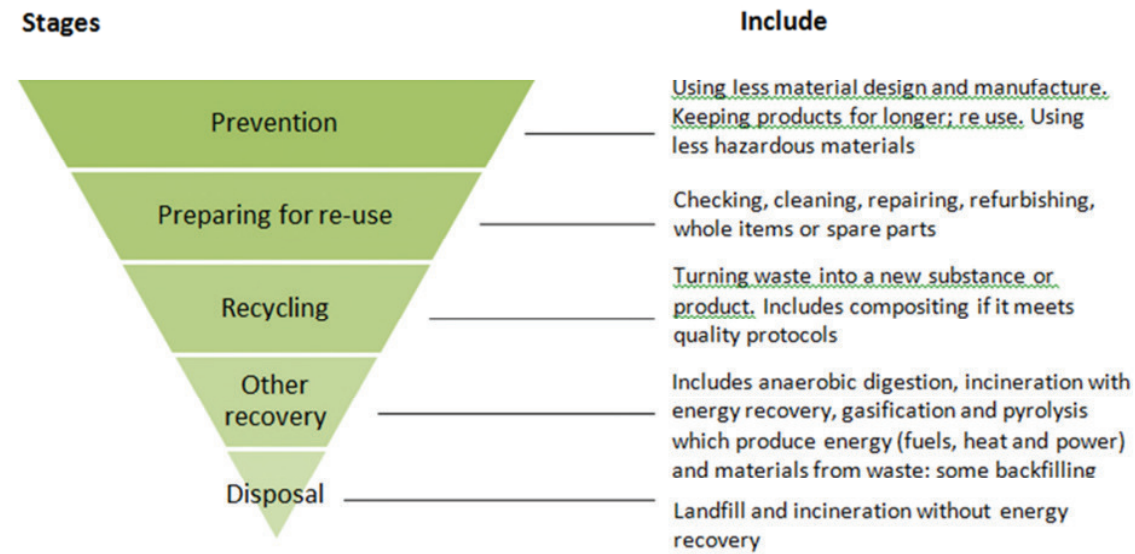
10.1 Duty of care

The Environmental Protection Act 1990 states that all producers of waste have a legal responsibility to ensure that all waste is produced, stored, transported and disposed of without harming the environment. This is called your 'Duty of Care'.

In accordance with the SPEN Environmental Management System and to ensure compliance with the 'Duty of Care', a Site Waste Management Plan shall be completed by each contractor and submitted for review. Each contractor working on an SPEN project must provide a site waste recording form and update all waste information on a monthly basis.

10.2 Waste hierarchy

The waste hierarchy ranks waste management options according to what is best for the environment. Top priority is given to preventing waste in the first place. When waste production is unavoidable priority is then given to preparing it for re-use, then recycling, then recovery. When all other disposal routes have been exhausted disposal of waste to landfill is the final option.



The waste hierarchy should be implemented as part of the (site waste management plan) SWMP to plan the management and disposal of waste produced on site.

10.3 Site waste management plan (SWMP)

A SWMP must be put in place by each contractor on each SPEN project. This can be done using the SPEN format or the contractor can use their own. The SWMP is in 2 parts:

- Waste Forecasting; and
- Waste Recording.

The SWMP is an annual recording system and therefore a new waste forecast and recording sheet will be required for each year of the project. All waste records must be uploaded to ProjectWise with the SWMP updated and uploaded on a monthly basis.

In every case the SWMP must capture the following information:

- An annual waste forecast;
- Waste type i.e. Inert, Non-hazardous, Hazardous;
- Description e.g. soil and stone, toilet water etc.;
- Action to be taken to minimise waste (volumes reused, recycled, landfilled);
- The correct European Waste Code (EWC) provided;
- Date removed from site;
- Weight in tonnes; and
- Name of waste carrier, waste facility and their regulators registration numbers.

10.3.1 Waste Monitoring and Minimisation

The site waste management plan is in place to target, monitor and report against waste arising's on a monthly basis. Waste will be segregated where a viable waste stream is identified. Efficient

procurement of materials and services will reduce the volume of waste that will be generated by the project. Subcontractors and their suppliers will be consulted on methods to reduce potential waste sources before they are brought on to site.

10.4 Waste Transfer Notes (WTNs)

All movements of waste off site must be accompanied by a WTN. This is a legal document stating the type and quantity of waste being removed, the waste carrier's information and the intended end destination. The WTN must include a European Waste Code (EWC), a six digit code for each waste stream, a Standard Industrial Classification (SIC) code to classify the business type producing the waste, and note that the waste hierarchy has been considered. It must also be signed by both the haulage driver and the contractor to whom the waste belongs. A copy of the WTN must be kept for a minimum of 2 years.

10.5 Consignment Note

A Consignment Note is a type of WTN that is used for the movement of Special Waste. A Consignment Note contains all the same information as a WTN but has an additional section that must be completed by the receiving waste management facility on receipt of the waste. 'Pre-notification' of the first movement of waste must be provided to SEPA at least 3 working days before the 'expected removal date'. A copy of the fully completed Consignment Note must be kept for a minimum of 3 years.

10.6 Licences and Exemptions

There are several licences and exemptions that are required to be in place prior to waste being removed from site. The documents required will vary depending on the type of waste and activity being undertaken.

Waste Carriers Licence – any organisation that transports waste as part of its business must be registered as a Waste carrier. This includes any form of waste being removed from site to be disposed of elsewhere, including packaging.

Waste Management Licence/Permit/Exemption – a waste management licence, permit or exemption must be in place for the facility that the waste material is going to. This documentation verifies that the facility can legally accept the waste being removed from site. This documentation must be in place and validated prior to any waste removal from site.

10.7 Site specific requirements

Waste	Management	Documentation
Spoil	Cut and fill exercise undertaken by site team to allow for reuse of excavation material on site.	N/A – all stockpiles kept within site boundary.
Aggregate	All aggregate or stone from access tracks is regarded as waste after its removal. This must be removed from site via a licenced waste carrier. Disposal/reuse can only take	The receiver of any waste product must have a SEPA waste exemption/licence prior to taking ownership. This includes utilisation of previous access road

	place at a licenced or exempt facility and all documentation must be in place prior to removal from site and recorded in the SWMP.	materials for other purposes by the landowner or any other organisation/ or landowner.
Packaging	Timber and cardboard packing materials. To be disposed of off-site to a recycle facility.	Record on waste record sheet and with WTN upload to Projectwise monthly.
Hazardous waste	Excavated material from spills of oil/fuel/chemical. Suitable spill prevention measures to reduce this.	Consignment note showing removal to specialist waste carrier/disposal facility. Record on waste record sheet and with CN upload to Projectwise monthly.

11. INCIDENT MANAGEMENT

SPEN Projects Incident Management Programme will be implemented on this project if required. The Incident Manager shall in all cases be the SPEN Projects Construction Manager.

The Construction Manager shall ensure that the duties identified in the Incident Management Programme documentation are carried out by an incident investigation team that has been identified for the project.

This documentation can be used by SPEN Projects contractors and SPEN Projects Construction Management team.

12. MONITORING AND MEASURING

12.1 Site Inspections

The SPEN Projects Environmental Advisor for the project will carry out regular inspections against the procedures and specifications used during the works. The frequency of the Environmental Inspection will vary depending on the number of contractors present at the site and the risks involved in the activities. The Contractor's Environmental Advisor will provide the SPEN Projects Environmental Advisor with a two week look ahead of working activities. Joint inspections of the site will be agreed to by SPEN Projects and the contractors Environmental Advisor during the site start up meeting.

The findings of site inspections will be communicated at the site and then via Projectwise on return to the office.

Contractors will be responsible for carrying out their own Environmental inspections during the course of the works, and uploading the findings to Projectwise.

12.2 Audits

SPEN Projects have the right to audit the contractor at any time during the course of the works. All contractors will be given at least 10 working days' notice when a formal audit will be carried out. All contractors are expected to provide suitable resources to assist with the audit.

Contractors are expected to carry out audits in line with the level of environmental risk of project work activities and management system commitments. Contractors will inform SPEN Projects of their audit schedule upon contract award.

ISO 14001 Accreditation audits/certificates to be communicated to SPEN Projects.

13. ENVIRONMENTAL EMERGENCY RESPONSE PLAN (ERP)

The CPP will detail the Contractor responsible for producing the ERP.

The Contractor shall prepare and submit to SPEN Projects Environmental Advisor an Emergency Response Plan (if they are required in the CPP) which details the management arrangements for potential environmental emergencies. The following environmental emergency response procedures (13.2 to 13.5 are examples) should be used as a basis for the development of the contractors Emergency Response Plan. The contractors' emergency response plan should provide more detail relating to types of incidents, hazards, response procedures and emergency contact telephone numbers.

A drill shall be carried out by the Contractor that produced the ERP for each potential emergency situation that can have a major impact on the environment. The details of the drill shall be recorded an Emergency Response Plan and submitted to SPEN Projects.

All Contractors must ensure they are aware of the ERP requirements and that the requirements are communicated to all their staff on site.

The emergency response plan should include the details of the emergency contacts including that of a 24 hour emergency spill contractor that is available throughout the course of the works and equipped to deal with the incidents identified in the Emergency response Plan.

Contractors should complete the table below specific to the project:

Name	Address	Number
Police Scotland		
Scottish Fire and Rescue Service		
Scottish Water		
The Scottish Environmental Protection Agency (SEPA)		Hotline number 0800 80 70 60
Local Council		
Waste Contractor		
Spill Contractor (emergency 24 hr)		
The Scottish Society for the Prevention of Cruelty to Animals (SSPCA)		
Scottish Natural Heritage (SNH)		

13.1 Environmental Yard Plan

The emergency response plan should include a marked up drawing indicating surface, foul and combined drains, along with any watercourses within the yard. A marked up drawing should also be in place for works taking place near sensitive areas such as watercourses and should indicate drainage, silt/pollution prevention measures and location of spill kits. This drawing shall be briefed to all works staff during pollution prevention training to make them aware of at risk areas.

13.2 Emergency pollution Event to Air

- LOCATE the source of the air pollution
- If safe to do so, **STOP** the source of the pollution for example by turning off faulty equipment. Do not expose yourself to any dust or vapours without the appropriate PPE.

- **STOP** any works which are in the vicinity of the pollution event and make sure all site staff and members of public are diverted away from the pollution event.
- **SUPPRESS** particulate air pollution with water but only if you can control the run off such that the water will not enter any drains or watercourses.
- **REPORT** the incident to the works manager and site engineer who will then determine if the event is serious enough to require notification to the Local Authority. Report the incident to the SPEN Projects Environmental Advisor.
- **REVIEW** the cause of the pollution event to determine any actions required to prevent the incident from recurring. Review the effectiveness of the response plan and make any changes necessary.

13.3 Emergency Pollution Event to Land or Water

No discharges can be made to land or water without a discharge consent in place. In the event of a fuel or chemical spillage the following procedure must be employed:

- **ASSESS** the situation. Determine the source, composition and approximate quantity of the spill and determine whether you have the appropriate equipment, PPE and training to tackle the spill.
- Get the **HELP** you require to deal with the spill safely. Inform the Works Manager/ site engineer of the spill. They will contact a spill contractor if required.
- If the spill is located adjacent to the site on one of the roads/pathways used by members of the public, **PREVENT** pedestrians and traffic passing through the spill. Contact police headquarters if the spill prevents a risk to traffic.
- **STOP** the source of the spill.
- **CONTAIN** the spillage using either a spill kit or a suitable inert material e.g. sand. **DO NOT** allow the spill to enter the local drainage system or watercourses. Cover any drains, and use spill socks to prevent run off to watercourses
- **REMOVE** the spillage. Small spills can be removed using spill mats and/or granules; larger spills may require a pump from a specialist contractor.
- **DISPOSE** of the waste material. Used spill kit should be placed in a designated bin separate from all other types of waste. Do not put used spill kit material in any of the skips. Material which has been pumped may be stored in empty oil drums or other suitable container prior to removal by a registered special waste contractor.
- **REPORT** the incident. Complete an Incident Report Form and provide a copy to the SPEN Projects Environmental Advisor. SEPA must be informed in the event of pollution to a surface water drain; Scottish Water and the Local Authority must be contacted should pollution from site enter the surface water or foul drainage system.
- **REVIEW** event to determine any actions required to prevent the incident from recurring. Review the effectiveness of the response plan and make any changes necessary.

13.4 Silting of Watercourses

It is the contractor's responsibility to ensure all watercourses visible on a 1:50,000 OS map have been identified at the planning stage and mitigation measures have been considered and implemented, such as, but not limited to silt fencing, Hydro dams, cut off ditches. Reference should be made to SEPA CAR Practical Guide and Pollution Prevention Guideline PPG5.

- **CHECK** watercourses during periods of high rainfall or construction activities with potential for significant run-off.
- Get the **HELP** you require to deal with the situation safely and inform Site Manager of the silting.
- Implement mitigation measures immediately. **TRACE** back to the source where possible. Consider whether the site activity should be halted.
- **PREVENT** further spread of sediment downstream by implementing straw bales, silt screens etc. to help control sediment immediately. If already in place check for signs of damage.
- **MONITOR** the effectiveness of protection measures daily and re-plan as necessary.
- **MAINTAIN** straw bales/screens etc. regularly so they do not make problems worse.
- **REPORT** the incident within 24 hours to the SPEN Projects Environmental Advisor. SEPA must be informed in the event of pollution to a surface water drain; Scottish Water and the Local Authority must be contacted should pollution from site enter the surface water or foul drainage system. SPEN Projects must be informed as soon as is reasonably practicable if a regulatory body has been informed of an incident.
- **REVIEW** event to determine any actions required to prevent the incident from recurring. Review the effectiveness of the response plan and make any changes necessary.

13.5 Injured Animal

- **DO NOT APPROACH** the injured animal. It may be aggressive or be harbouring disease
- **STOP** works in the immediate vicinity of the injured animal
- **CONTACT** the SSPCA and follow their advice.
- The incident should be recorded and reported to the SPEN Projects Environmental Advisor.

Appendix 1: SPEN Environmental Technical Specification

Attached separately as a PDF

Appendix 2: SPEN Environmental Policy

Attached separately as a PDF

Appendix 3: ENDS Legal Compliance Register

Attached separately as a PDF

Appendix 4: Pollution Prevention Plan – Example

As a minimum the Pollution Prevention Plans will be site specific and should address the following:

Description of the Project

Location of this land within the construction site as a whole (if the plan covers only part of the site)	Provide maps/drawings
Location of watercourses (inc. culverted watercourses, land drains etc.), ponds, wetlands, estuaries and coast on the construction site	Provide maps/drawings

Description of the Works being undertaken

Type of construction work that will be carried on the land to which this plan applies (e.g. metaled roads; water bound roads; etc.)	
Scale of the construction work (e.g. Road length; etc.).	

Who is the point of contact in relation to this plan?

Person(s) acting as normal contact with SPEN about this plan	
Person(s) acting as 24 hour contact with SPEN in an emergency (i.e. if there is an imminent risk of pollution or where pollution is occurring)	

What pollution risks will be managed under this plan?

Potential pollutant sources during the phase of construction covered by this plan, including exposed soil, fuel storage areas, concrete washouts, wheel washes etc.	
Routes by which pollutants (including soil) could reach the water environment from these sources, e.g. overland flow, field drains, unauthorised pumping	<include map or maps of existing site drainage, watercourses, field drains etc., including how this may change over the period covered by the plan>
Parts of the water environment that the pollutants could reach and any particularly sensitive features (e.g.	<include map or maps of the parts of the water environment, including how these might change (eg as a result of ground works) over the period

salmon, freshwater pearl mussels,)	covered by the plan>
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What will be done to prevent pollution?

How the contractor will manage risks at source, including alternative methods if required.
Source 1 management Source 2 management Source 3 management
Add more as required

How we will manage water run-off

Details of minimisation of exposed soil

Drainage system 1

<Map of area drained>			
<Maximum water run-off rate likely from drained area>	<Soil/sediment settlement rate>	<Capacity of drainage system>	<Discharge location>
<Details of the drainage systems that will be installed to intercept and trap/treat contaminated water run-off>			
<Steps to prevent drainage system being bypassed>			
Drainage system 2			
<Map of area drained>			
<Maximum water run-off rate likely from drained area>	<Soil/sediment settlement rate>	<Capacity of drainage system>	<Discharge location>

<Details of the drainage systems that will be installed to intercept and trap/treat contaminated water run-off>			
<Steps to prevent drainage system being bypassed>			
Drainage system 3			
<Map of area drained>			
<Maximum water run-off rate likely from drained area>	<Soil/sediment settlement rate>	<Capacity of drainage system>	<Discharge location>
<Details of the drainage systems that will be installed to intercept and trap/treat contaminated water run-off>			

<Steps to prevent drainage system being bypassed>

What will we do if something goes wrong?

Rapid response actions that will be taken to try to prevent pollutants reaching the water environment	
Rapid response actions that will be taken in the case of pollution occurring	
Rapid response actions that will be taken in the case of site characteristics changing (e.g. soil types)	

How will we ensure that the plan is effective?

Maintenance programme that will be undertaken in relation to vehicles, plant and any infrastructure used to avoid, intercept or trap/treat pollutants	
Inspection programme that will be carried out to check the correct operation and effectiveness of the actions in this plan	

Management programme that will be used to ensure all workers on the site and anyone visiting the site are aware of, and doing, what is required of them in relation to this plan	
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Who is in charge of making sure this plan is implemented?

Person(s) with overall responsibility for ensuring this plan is implemented on a day-to-day basis	
Person(s) responsible for the maintenance programme (if different)	
Person(s) responsible for the inspection programme (if different)	
Person(s) responsible for ensuring appropriate rapid response to prevent or minimise pollution if something goes wrong	

Appendix 5: Ecological Survey Calendar

Protected Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Habitats & Vegetation	Recommended time to surveys mosses and lichens only											
Badgers	Best time for field surveys			Recommended time to undertake Phase 1 habitat surveys								
Bats	Inspection of hibernation, tree and building roosts			Activity surveys only; invasive surveys to be avoided			Activity surveys only; invasive surveys to be avoided			Inspection of hibernation, tree and building roosts		
Birds	Winter birds		Breeding birds/migrant species		Breeding birds		Breeding birds/migrant species		Winter birds			
Otters	Year round surveying, though wet weather can limit visibility.			Surveys for otters can potentially be conducted all year round, preferably when weather condition are stable, though dense vegetation cover can be limiting								
Pine marten	Surveys can be carried out at any time of year, though better in spring and summer			Survey for breeding dens			Optimal survey period is spring to summer			Surveys can be carried out at any time of year, though better in spring and summer		
Red squirrels	Survey at any time of year, breeding females		Survey at any time of year, summer. Breeding females can be surveyed		Survey at any time of year weather permitting, optimal in spring and summer. Breeding females can be surveyed			Survey at any time of year		Breeding females		
Water voles	Reduced WV activity	Initial surveys	Best time to survey			Surveys possible, but vegetation weather conditions can be limiting			Initial surveys		Reduced WV activity	

Great Crested Newt	No surveys as newts in hibernation	Pond Surveys for adults: mid-March to mid-June. Surveys must include visits undertaken between mid-April and mid-May. Egg surveys April to mid-June. Larvae surveys from mid-May Terrestrial habitat surveys	Larvae surveys to mid-August Terrestrial habitat surveys	Terrestrial habitat surveys	No Surveys – newts in hibernation
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Appendix 6: Survey Reports

Attached separately as a PDF

Appendix 7: SPEN Environmental Handbook (example TBTs)

Attached separately as a PDF