1. SCOPE

This Construction Environmental Management Plan (CEMP) has been developed for Kennoxhead Wind Farm Connection and is based on data gathered through pre-tender ecological and environmental surveys and stakeholder consultations.

The CEMP has been developed to ensure that the construction phase must be 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.

The CEMP aims to ensure that good construction practices are adopted and maintained throughout the construction of the project and provides assurance to third parties that agreed environmental performance criteria are met. It shall establish procedures for ensuring compliance with environmental legislation and statutory consents and detail the process for monitoring and auditing environmental performance.

For usability, a table containing the environmental Planning Conditions and where this information can be found within the document is included in Appendix 1.

This CEMP must be read in conjunction with the Contractors Environmental Performance Requirements (CEPR). The CEPR establishes the environmental requirements to be followed by SP Transmission Plc.'s (SPT) contractors for the tender, planning and execution of their works. The CEPR is in Appendix 2 of this document.

This CEMP details the results, recommendations and mitigations of the surveys and investigations and includes:

- Environmental Impact Assessment Report (EIAR)
- Ecology Reports;
- Hydrology Reports;
- Archaeology Reports

These can be seen at Appendices 3 and 4 of this document.

The CEMP will remain **a live document** for the duration of the project and will be revised and updated to reflect the scope of the project, the legal context and/or SPT compliance requirements. Where SPT are obliged to update or revise the CEMP this will be communicated to all contractors.

2. ISSUE RECORD

This is a Controlled document. The current version is held on Project Wise. It is your responsibility to ensure you work to the current version.

Issue Date DD/MM/YYYY	Issue No.	Author	Amendment Details
12/02/21	00	James Elliott	First Issue
06/10/22	01	James Elliott	New survey information for Protected Species. Updated template

3. ISSUE AUTHORITY

Author	Approved
Name: James Elliott Title: Environmental Advisor	Name: Laura Newlands Title: Environmental Advisor

4. CONTENTS

5. DESCRIPTION OF PROJECT

An application has been received from Brookfield Renewable UK Ltd, for a 132kV Point of Connection for Kennoxhead Wind Farm (112MW) which is located approximately 14km south of Coalburn 132kV substation.

It is proposed to establish a new 132kV switchbay at Coalburn 132kV substation. From here approximately 0.2km of underground cable will be installed before connecting to approximately 16km of Trident wood pole overhead line (c. 13m in height). Following this another cable section approximately 4.1km connecting to Kennoxhead Windfarm substation.

5.1 Project Location

The connection runs from Kennoxhead Wind Farm (Grid ref: 277165E 624386N) to Coalburn Substation (Grid ref: 282510E 637337N), both situated in South Lanarkshire.

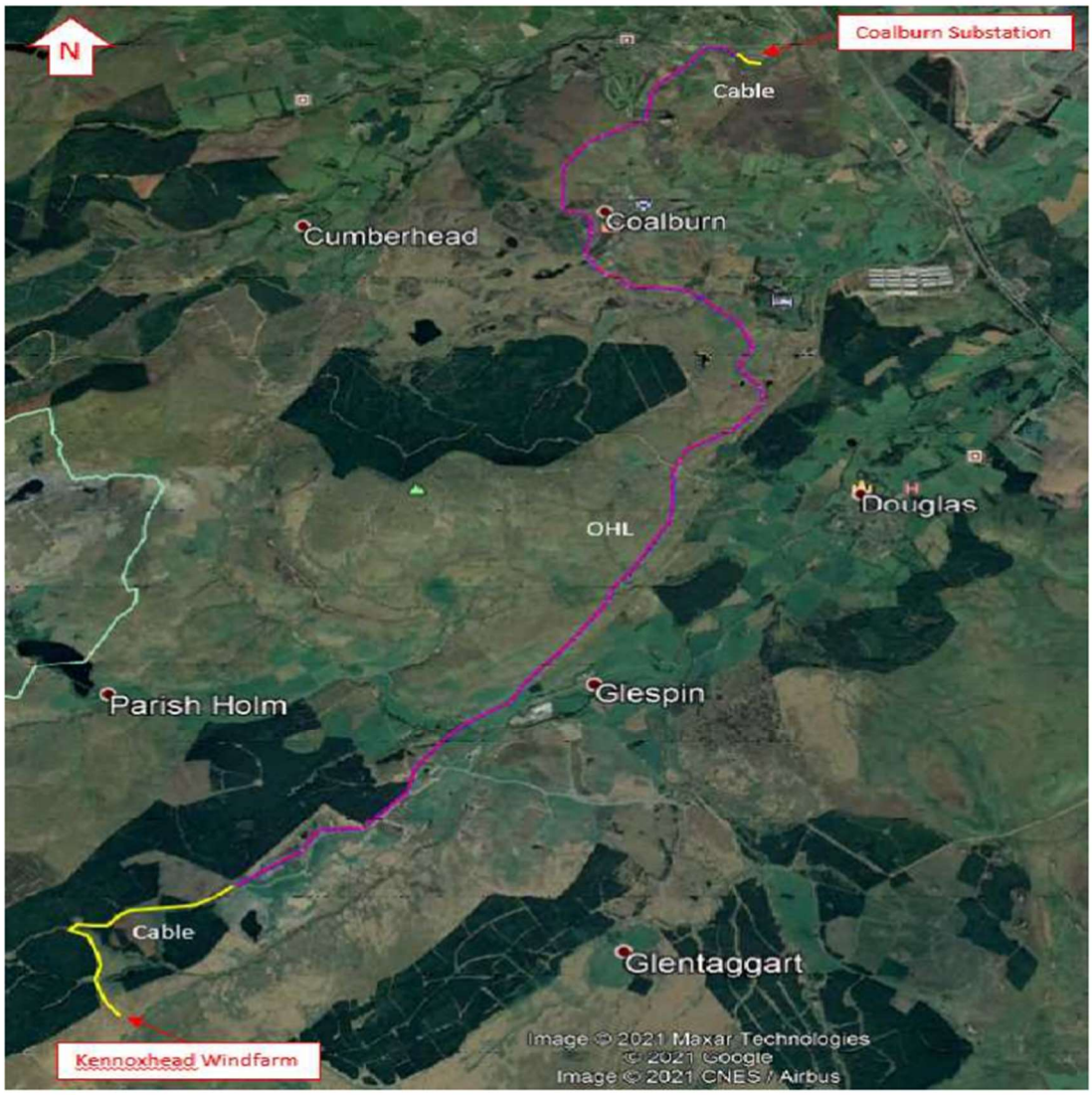


Figure 1: Map showing proposed connection between Kennoxhead WF and Coalburn Substation

5.2 Key Dates and Programme

5.2.1 Table 1: Key Dates and Programme Highlights

Stage	Planned Dates	Potential Impact
Substation Civil Works	July – November 2023	Oil/ fuel/ concrete pollution,
Substation BOP Works	November 2023 – June 2024	Winter working
Cable Installation	March – August 2023	Nesting birds, Habitat damage, Silt pollution, archaeological damage
OHL Pole Erection	February – June 2024	Nesting birds, Habitat damage, Silt pollution, archaeological damage
OHL Stringing	March – July 2024	Nesting birds

6. KEY STAKEHOLDERS

6.1 Pre-Tender Consultations

SPEN is committed to consulting with statutory and non-statutory bodies throughout the development process, not only as a statutory duty within the planning system, but as a measure to involve and gain feedback from as broad a range of consultees and stakeholders as possible.

A Routeing Consultation Strategy Document (RCD) describing the route selection process for the proposed grid connection was published in December 2019, giving interested stakeholders the information required to engage and comment on the project at an early stage. Community consultation events on the preferred route option were held in Coalburn and Douglas in February 2020.

Contractors are responsible for all new or continuation of consultations with key stakeholder's post tender award.

Table 2: Relevant regulatory agencies and interested parties

Regulator/ Interested Party	Responsibility
SEPA **Ayr Office** 31 Miller Road Ayr KA7 2AX 01292 294000 **SEPA's Pollution Hotline** – 0800 80 70 60 (24 hour service)	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. Report pollution incidents to Pollution Hotline. Issuing Construction Site Licenses for surface water management. Reviewing any methods statements and documents when required under a licence.
NatureScot **Ayr Office** Russell House King Street Ayr KA8 0BD 01292 270760 Email: licensing@nature.scot	Issuing any protected species or protected area (e.g. SSSI / SPA /SAC) licences required for the project. To be contacted where protected species are encountered during works and where the project ECoW/Environmental Advisor cannot be reached.
South Lanarkshire Council Almada Street Hamilton South Lanrkshire ML3 0AA 0303 123 1015	Planning Authorities and responsible regarding highways, road closures and Archaeology.

7. RESPONSIBILTIES

The environmental detailed responsibilities for SP Transmission are:

SP Transmission 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 SPT to obtain consent, in accordance with relevant legislation, from local or national government for the development of infrastructure. Under 'The Act' it is SPT'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.

SPT 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.

The environmental detailed responsibilities for SPT Projects are:

Name/ Tile	Responsibility
SPT Project Manager Construction Manager/ Site Manager	i. Regular liaisons between all parties on site to ensure adequate precautions are taken to minimise the impact on the environment. ii. Ensure the CEMP 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; a. The most appropriate order and method of working b. Allocation of responsibilities between personnel, and other organisations on site. c. The CEMP 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	i. Inputs into the preparation of the CEMP 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 on 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.

Note that the environmental responsibilities for the contractor(s) on this project are described in the Contractor's Environmental Performance Requirements (CEPR) document. See below.

8. CONTRACTORS ENVIRONMENTAL PERFORMANCE REQUIREMENTS (CEPR)

The Contractors Environmental Performance Requirements (CEPR) is a document which details all the environmental performance requirements of contractors on SPT projects. The CEPR covers all EU and UK Environmental Legal Requirements and SPT compliance such as:

- ISO 14001 certificated for the scope of work tendered; and
- SPT Sustainability Commitments for all projects.
    - Divert 95% of waste from landfill by 2023, re-use and recycle 100% of waste by 2030 and achieve zero waste by 2050;
    - Reduce water use by 10% by 2023, 25% by 2030 and 50% by 2050;
    - 15% reduction in our carbon footprint by 2023, 80% reduction by 2030 and be carbon neutral by 2050; and
    - Improvement in Biodiversity with no net loss.

The CEPR can be found in Appendix 2 of the CEMP.

9. 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 SPT Site/ Construction Manager or SPT Environmental Advisor. The SPT Site/ Construction Manager or SPT Environmental Advisor will then distribute the information to the relevant parties. All communications with regulators such as SEPA/NatureScot must also be communicated to SPT and records saved on SPT's document management system ProjectWise. General communication shall take place on site daily to ensure the project is managed effectively.

Direct actions taken by SPT 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 SPT 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 SPT. SORs will be discussed at the weekly meetings.
Email	SPT 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 SPT'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.
Environmental Folders on ProjectWise	Up to date electronic copy or hard copy shall be available to reference by site staff and for inspection purposes.

10. SITE ENVIRONMENTAL BASELINE CONDITIONS

SPT have provided information on the baseline conditions which indicates the site environmental risks and likely impacts (without mitigation) associated with the project. The baseline conditions for the various aspects are detailed in Table 3 below. The baseline reports cover:

- Designated Sites;
- Habitats and Species;
- Biodiversity;
- Historic and Cultural Environment;
- Geotechnical (SI works);
- Hydrological Context; and
- The Water Environment (watercourses etc).

This is a **baseline** which shall be monitored and re-evaluated throughout the project. There must be an allowance for unexpected finds which materially affect this baseline. This would be particularly relevant where projects are active

over more than 1 survey season (> 12 months) or where limitations applied to the amount of pre-tender investigation work which was undertaken due to lack of access or due to changes in scope of the project post tender.

Therefore, this aspect of the CEMP must be considered as **live** for the duration of the project. Any new finds or changes in site sensitivity will be communicated to all contractors. This would require contractors to revise risk assessments and method statements etc as a minimum.

10.1.1 Table 3: The key environmental aspects and the baseline conditions

Environmental Constraints	Baseline Conditions
Ecology - Statutory Designated Sites	There are two statutory designated sites located next to the route comprising one special area of conservation (SAC) and one special scientific interest (SSSI). They are: ▪ **Coalburn Moss SAC** - This SAC is designated for having active raised bogs and degraded raised bogs still capable of natural regeneration. The site lies immediately to the east of the northern section of the proposed route. ▪ **Coalburn Moss SSSI** - This SSSI is one of the best examples of lowland raised bog in the UK for its actively growing *Sphagnum*-rich vegetation. The site lies immediately to the east of the northern section of the proposed route. As well as this, there are two statutory designated sites within 2 km of the site boundary. They are: ▪ Muikirk Uplands SSSI (1190m from route) ▪ Miller's Wood SSSI (1035m from route)
Ecology – Non-Statutory Designated Sites (Local Nature Conservation Sites)	There are no non-statutory designated sites within 2 km of the site boundary. There are 39 ancient woodlands within 2 km of the site boundary, two of which are within 50m of the route.
Archaeology/ Cultural Heritage	There are two scheduled monuments within the study area. Auchensaugh Hill cairn is located 4.5 km south east of the proposed route. St. Bride's Church, Douglas is located 1.3 km south east of the proposed route. St. Bride's Church is also a Category A listed building There are two listed buildings located within 1 km of the proposed route, both of which are Category B. Statue, West Town is located 630 m northeast of the proposed route, and Auchlochan Bridge located 910 m northwest of the proposed route. There is a single conservation area (CA), Douglas, within the study area. This is located 1.3 km southeast of the proposed route.

Environmental Constraints	Baseline Conditions
	Regarding Non-Designated Assets, 44 entries in the Historic Environment Record (HER) and National Record of the Historic Environment (NHRE) are located within the proposed route. They include assets recording settlement and agricultural land use, including a hut circle or shieling, possible house platforms, structures, enclosures, sheepfolds and a farmstead. Most of these assets are likely to date to the post-medieval and modern periods, with the likely exception of the hut circle or shieling at Kennox Water, which may date to the late prehistoric (Bronze or Iron Age). Also notable are the number of assets associated with extractive industries, processing and transport, including quarries, a coal pit, mining remains and a railway, a mine, a mill, a colliery, former railway and a tramway, lime kilns, ponds and a pump house. As with the settlement and agricultural assets identified above, the majority of these are likely to date to the post-medieval and modern periods In the third group are assets not fitting into either of the above two types, including a possible cairn at Kennox Water, a cropmark, and a rifle range. Based on an appraisal of the HER and NRHE records, these heritage assets are considered to be of up to regional archaeological importance, although many will be less significant.
Ecology - Habitats	A Phase 1 Habitat Survey of the route corridor found that the site comprises the following habitat types; woodland & scrub, grassland & rush dominated vegetation, tall herb & fern, ephemeral, dry & wet heath, mire & flush, ponds, rivers, ditches & swamps, residential, hardstanding and substation associated structures. Field boundaries were typically formed by fences, dry stone walls and occasional hedgerows. A phase 1 habitat map is provided in *Figure 1* and the phase 1 habitat types within the site boundary are listed in *Table 4* of the PEA (see Appendix 3).
Ecology - Protected Species	**Bat** There are trees and structures along the route which provide potential roosting habitat for bats. The scrub, woodland, and woodland edge habitats along the route provide good foraging habitat for bats, as well as the Douglas Water and other water courses. 18 trees within 50 m of the proposed route were identified as having potential to support roosting bats. Of these, 11 have low potential, 6 have medium potential and 1 has high potential. There were 3 bridges, 2 culverts and 1 building within 50 m of the survey area, of which one of the bridges and both culverts have low potential, 2 bridges have medium potential, and the building has high potential. A full list, descriptions and photos of these trees and structures can be found within the Protected Species Report in Appendix 3.

Environmental Constraints	Baseline Conditions
	Otter There are several areas of potential otter habitat along the proposed route, including ponds and the Douglas Water. No evidence of otter was found during the protected species walkover survey. **Badger** There is suitable habitat for badger along the route including woodland and scrub. A well-used main sett with nine holes was found in woodland west of the disused tip located north of Coalburn at NS81336 36408, and a single hole outlier at NS81316 36449. Both setts are within 30 m of the planned route. Fresh bedding materials were present at the entrances of the main sett, indicating recent use by badgers and that the sett is a breeding sett. **Water vole** A large proportion of the route is located on suitable water vole habitat. This includes the watercourses between Kennoxhead and Carmacoup and the waterbodies and mire between Glespin and Johnshill. Evidence of water vole was found at several points, including around Coalburn and opencast workings in the southern section of the route. Full details are provided within the Protected Species Report in Appendix 3. **Red squirrel** There is suitable woodland habitat for red squirrel along the route. Areas of woodland along the route provide suitable habitat for red squirrel, including the forestry plantations at NS788268 and NS805345 and the areas of woodland at NS804282 and NS813363. No evidence of red squirrel was found during the protected species walkover survey. **Pine marten** There is suitable woodland habitat for pine marten along the route, though no evidence of pine marten was found during the protected species walkover survey. **Reptiles** Almost all the area within 50 m of the route provides suitable habitat for common reptiles, excluding waterbodies, roads and areas of hard standing, although the edges of these could be used for basking. Piles of rubbish and rubble as well as brash piles provide suitable hibernacula for reptiles during winter. A single common lizard was observed within the survey area during the protected species walkover survey. A Species Protection Plan for each of these species/ groups can be found in Appendix 2.

Environmental Constraints	Baseline Conditions
Ecology - Birds	Ornithological surveys (vantage point and walkovers) have been ongoing since September 2019. A large number of birds were recorded during these surveys, including Schedule 1 species (hen harrier and merlin). **Raptors** During the raptor nest search undertaken in June 2020 of two sections of the proposed OHL route (either end of the route), kestrel were recorded as breeding, recorded just west of Coalburn. No breeding raptors were identified during the raptor nest search of the entire proposed OHL route in March 2021. In April 2021, goshawk activity was recorded in Long Plantation, Douglas and it is assumed that breeding occurred. **Waders** During the breeding bird walkover survey in 2021, oystercatcher, common sandpiper and lapwing were confirmed as breeding on site, with snipe, curlew and ringed plover were recorded as probable breeding species. Key habitat areas for breeding waders along the route include the disused quarry pit and ponds between Chapel Hill and Kennox; the upland moorland between Longhouse Hill and Poniel; and the disused quarry at Dalquhandy. **Wildfowl and Gulls** During the breeding bird walkover surveys in 2021 Canada goose and greylag goose were confirmed to be breeding at the disused quarry pit at Chapel Hill. Mute swan, black headed gull, mallard, wigeon and tufted duck were recorded as possibly breeding at the disused quarry pits at Dalquhandy. Wildfowl and gull activity is concentrated around the disused quarry pits at Kennoxhead and at Dalquhandy. Breeding activity has been recorded at both areas, as have flights at the approximate height of the proposed overhead line. **Passerines** During breeding bird walkover surveys in 2021, meadow pipit, skylark, starling, and willow warbler were confirmed breeding. 18 other species were classed as probably breeding and 11 species as possibly breeding. None of these species are considered target species whereby impacts associated with the proposed development could be likely to result in significant adverse effects on those species populations.
Ecology - Invasive Non-native Species	Invasive plant species located on site included Japanese Knotweed (*Reynoutria japonica*) and Japanese Rose (*Rosa rugosa*). These were located along a small watercourse south of Coalburn (see PEA in Appendix 3).

Environmental Constraints	Baseline Conditions
Ecology - Protected Habitats (EU Annex 1)	The dry heaths and bog habitats correlate with Annex 1 habitat types. The condition of these habitats varies as there has been a degree of modification throughout the site and therefore not all instances of community types will constitute an Annex 1 habitat.
Ecology - Protected Plant Species	There are no plant species from the habitats recorded on site that are critically endangered, endangered or vulnerable on the IUCN Red list.
Water - Hydrology	The route corridor lies almost entirely across two watercourse catchments: the Douglas Water and the River Nethan.
Groundwater Dependant Terrestrial Ecosystems	The NVC and GWDTE surveys were undertaken along the proposed route and up to 250 m from the proposed route. Of the NVC types, several are identified by SEPA as being GWDTE. Two of these habitat types were listed as being strongly dependent on groundwater discharge and six as having some dependency. Full details can be found in the GWDTE Report in Appendix 3).
Water - Private Water Supplies	Five PWS have been identified that have potential to be at risk from the development, defined as being within 250 m of the proposed route corridor or with a probable source location directly downstream from the proposed route. Carmacoup and Parishholm supplies, at Longhouse near Glespin, are located approximately 115 m downslope from the proposed route corridor. The PWS at Kennox is located within the area of opencast workings. This property is approximately 330 m downslope from the proposed route corridor. The PWS at Kennoxhead and Cleugh are both located downstream of the proposed underground cable section of the route. The supply at Kennoxhead is approximately 430 m distant from the cable route, and the supply at Cleugh is 75 m distant.

10.2 Further Survey and Pre-Construction Checks

The baseline conditions indicate that there will be a requirement for further surveys including pre-construction surveys for:

- Nesting birds
- Bats
- Badger
- Otter
- Water vole

11. CONSTRUCTION ASPECTS AND IMPACTS

11.1 Risk Assessment

The construction of Kennoxhead Wind Farm Connection presents potential risks to the environment unless control measures and mitigation are put in place. Any risk assessment must be based on:

a. The sensitivity of the baseline conditions described in Table 3 above e.g. presence of designated sites, protected species, proximity to the water environment; and

b. The stage of works including duration.

Contractors on SPT projects must consider the risks their works present and provide an appropriate risk assessment as part of their tender submission.

11.1.1 Table 4: Project Stage Risk Level

TYPICAL RISK LEVEL	LOW	HIGH				MODERATE	LOW
Project Stage	Site establishment (compound and welfare set up)	Installation of Access Tracks	Major Civils (large excavations for new buildings, platforms, cables, tower foundations etc)	Any project working in or near the water environment	Any project which requires a Construction Site Licence from SEPA	Maintenance and repair works (e.g. tower painting)	Balance of Plant (which may include some minor civils works) and commission phase

11.2 Site Specific Environmental Aspects and Impacts

All contractors must respond to the site-specific environmental aspects as per Table 5 and potential impacts within their tender submission indicating their proposed mitigation and management controls for each. Contractors should also refer to the performance requirements detailed in the CEPR.

Should there be any modifications or changes made to the scope of any aspect of the construction then any risk assessments made should be revisited to ensure that the control measures and mitigations remain sufficient to manage any new or increased risk.

Table 5: Project Aspects and Impacts Register

Activity	Environmental Aspect *Environmental aspect is an element of the project's activities that interacts or can interact with the environment*	Environmental Impacts and risks *Change to the environment, whether adverse or beneficial, wholly or partially resulting from the project's environmental aspects*	Mitigation & Management Controls *Efforts to reduce or eliminate impacts*	Relevant Legislation (Non-exhaustive)
Site establishment/ Installation of Access Tracks, Site/Ground Investigation works/ Civils	Working in Designated Sites	Destruction/ Habitat loss	Ensure all appropriate consultation and consents are agreed with NaturalScot prior to works commencing in the relevant areas.	National Parks (Scotland) Act 2000 Nature Conservation (Scotland) Act 2004 Environmental Liability (Scotland) Regulations
Site establishment/ Installation of Access Tracks, Site/Ground Investigation works/ Civils	Vegetation Clearance	Destruction/loss of habitat Impact on protected species (list those present on site) or harm to resident animals which are not protected.	Vegetation clearance should be carried out with the nesting season. Any clearance undertaken during the nesting season (March to August inclusive) must be done under the supervision of an Ecological Clerk of Works/ecologist, this may result in programme delays if protected species are found. Contractor to arrange relevant preconstruction surveys and licences / consents and to implement mitigation measures for works. Relevant TBT to be issued to all on site	Nature Conservation (Scotland) Act 2004 Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments Wildlife & Countryside Act 1981 and amendments

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Plant/Vehicle operations	Biosecurity	Biosecurity when not adhered to can lead to the spread of invasive species in a new habitat which may not be able to cope with the new species Loss of native plants and animals, reducing biodiversity Loss of habitat can cause issues to landowners, animals using the habitat and the hydrology	Contractors must ensure there is no cross contamination by ensuring all plant and vehicles are washed thoroughly before entering/leaving different habitat areas or catchments depending on the risk (i.e. if there is a specific area of risk in a small area like a field within a wider catchment this must be treated as a different catchment). The contractor is responsible for establishing and documenting within their EMP the procedures and processes to maintain an acceptable level of biosecurity for the project. This must be agreed with the landowners before access is taken.	Wildlife and Natural Environment (Scotland) Act 2011) Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) Wildlife and Natural Environment (Scotland) Act 2011
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Peat	Improper handling/ storage of peat can cause major issues to the natural structure of peat and affect carbon balance, local hydrology and cause flooding. This can lead to long-term changes to habitats resulting in permanent habitat loss. Overall reduction in biodiversity due to species loss.	Peat must be excavated, stored and reinstated correctly. Ensuring segregations, storages areas no higher than 1.5m and 30m away from watercourses. Turves should be stored vegetation side up and be watered to ensure they do not dry out A Peat Management Plan shall be in place and implemented.	Environmental Liability (Scotland) Regulations 2009 Wildlife & Countryside Act 1981 and amendments Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Nesting birds	Destruction of habitat Disturbance to/ death of/ injury to breeding birds or their chicks	All wild birds are protected. It is an offence to intentionally or recklessly disturb any wild bird while it is nest building, at a nest containing eggs or young, or to disturb the dependent young of such a bird. Suitable nesting habitats and programme works shall be identified to avoid impacting on these during nesting season (March – August inclusive). Mitigation measures shall be implemented to prevent birds nesting in work areas. 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 NatureScot to disturb or relocate protected species may be required. Relevant pre-works checks shall be arranged by qualified ecologist/ECoW on all suitable habitats where work within nesting seasons is unavoidable. Contractor shall minimise the impact to nesting birds, including arranging necessary licenses or consents and stopping work. Site teams shall be trained on Nesting Birds.	Environmental Liability (Scotland) Regulations 2009 Wildlife & Countryside Act 1981 and amendments Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments Nature Conservation (Scotland) Act 2004

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Reptile habitat	Destruction/loss of habitat Potential disturbance / death / injury to reptile species	The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works in consultation with NS and/or suitably qualified Ecologists. Vegetation within suitable reptile habitat shall be progressively cut, typically a two-stage cut, strimmed and chipped to remove cover. Clear areas are to be left for at least 24 hours prior to soil stripping. Any area of rocks, brick rubble or other debris that have been present for over six months within suitable reptile habitat are to be destructively searched by hand before the start of construction in that area by a qualified person.	Environmental Liability (Scotland) Regulations 2009 Wildlife & Countryside Act 1981 and amendments Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments Nature Conservation (Scotland) Act 2004

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Invasive Non-Native Species	Increase in waste – increase in cost to remove. Program implications to facilitate removal / treatment works for X plant species at Y location. Pollution to ground Dead stems washed into and clogging up watercourses can cause an increased risk of flooding Loss of biodiversity	The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works. 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. 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. Educate workforce on common INNS and precautionary measures, for example do not touch Giant Hogweed.	Wildlife and Natural Environment (Scotland) Act 2011) Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) Wildlife and Natural Environment (Scotland) Act 2011 Environmental Liability (Scotland) Regulations 2009

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Bat habitat	Destruction of habitat – bat roosting potential / commuting / foraging found at X location Potential disturbance/death/injury to bats	The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works in consultation with NS and/or suitably qualified Ecologists. 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.	Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments Nature Conservation (Scotland) Act 2004 Protection of Badgers Act 1992 Wildlife & Countryside Act 1981 and amendments

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Badger Habitat	Destruction of habitat Potential disturbance/ death/injury to badger – active setts / commuting / foraging found at X location	The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works in consultation with NS and/or suitably qualified Ecologists. Please consult ecology survey calendar for best survey/mitigation timescales If a badger sett is identified, then a licence from NS may be required to work within 30m of the identified badger sett if this area cannot be avoided. Note that the buffer zone may be extended for operations that produce ground vibrations e.g. pile-driving. Open excavations (including trenches, trial pits and manholes) will be covered at night where possible, to prevent animals falling in. Where it is not possible to cover an open excavation on a nightly basis a means of escape, such as a plank of wood, will be left in the excavation.	Wildlife and Natural Environment (Scotland) Act 2011) Protection of Badgers Act 1992 Wildlife & Countryside Act 1981 and amendments

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Otter/ Water Vole habitat	Destruction of habitat Potential disturbance/death/injury to otter/water vole – holts / lying up spots found at X location	The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works in consultation with NS and/or suitably qualified Ecologists. All new watercourse crossings (or other works near watercourses) should be assessed beforehand for otter/ water vole by a suitably qualified ecologist. If otter shelters or water vole habitat are found during surveys, a 30m buffer zone should be established (note that this can increase to 200m for a breeding holt). If works are required within this buffer zone, NS will need to be consulted regarding a licence. Please consult ecology survey calendar for best survey/mitigation timescales	Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments Nature Conservation (Scotland) Act 2004 Wildlife & Countryside Act 1981 and amendments

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Red squirrel/ pine marten	Destruction of habitat Potential disturbance/death/injury to red squirrel/ pine marten – dreys / dens found at X location	The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works in consultation with NS and/or suitably qualified Ecologists. All tree felling (and other works) in areas known to support red squirrel/ pine marten should be surveyed beforehand by a suitably qualified ecologist. If squirrel dreys or pine marten shelter/ dens are found during surveys, a buffer zone should be established (size dependent on breeding status of drey/den). If works are required within this buffer zone, NS will need to be consulted regarding a licence. Please consult ecology survey calendar for best survey/mitigation timescales	Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments Nature Conservation (Scotland) Act 2004 Wildlife & Countryside Act 1981 and amendments
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Great Crested Newt (GCN)	Destruction of habitat Potential disturbance/death/injury to GCN – ponds found at X location	Any ponds on site will have been assessed for GCN potential before construction phase of project commences. The contractor is responsible for any further pre-construction surveys and arranging any relevant licences or mitigation measures for the works in consultation with NS and/or suitably qualified Ecologists. Please consult ecology survey calendar for best survey/mitigation timescales	Conservation (Natural Habitats etc.) Regulations 1994 SI 2716 and amendments Nature Conservation (Scotland) Act 2004 Wildlife & Countryside Act 1981 and amendments

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Trees, tree roots	Damage to trees and disturbance to the animals within them e.g. nesting birds and roosting bats. Permanent habitat loss and overall reduction in biodiversity due to species loss. Breach of TPOs / TPO areas found at X location. Breach of planning conditions X Destabilisation of large trees is potential safety risk. Loss of visual amenity	All working activity close to trees should follow BS 5837 (2012) and NJUG 4 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. If disturbance of the root in the root protect area is required, the tree and root system should be assessed by an arboriculturist prior to works and their recommendation followed. Ensure Tree Preservation Orders have been checked with the Local Authority and consent granted if required.	Nature Conservation (Scotland) Act 2004 The Town and Country Planning (Tree Preservation Order and Trees in Conservation Areas) (Scotland) Regulations 2010
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Biodiversity	Destruction, degradation and fragmentation of habitats Reduction of individual species and reproductive rates through exploitation, pollution and introduction of invasive species Loss of habitat or/and species	Loss of irreplaceable biodiversity must be avoided, and loss of other biodiversity has to be compensated (in terms of quality and quantity). Define possible measures to avoid, minimise or compensate for significant damage to, or loss of, biodiversity and/or ecosystems services; define possibilities to enhance biodiversity. Follow the biosecurity methods.	Environmental Liability (Scotland) Regulations 2009

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of Access Tracks, Site/Ground Investigation works/ Civils	Water crossings	Incorrectly installed culverts risk causing barriers to fish and other fauna, hydraulic steps or other features which alter the bed of the watercourse and encourage scouring and other erosive activity which would not otherwise occur. Regulatory enforcement action on incorrectly installed culverts is likely due to their high level of visibility. Erosion of riverbed (scour from change in hydraulic regime). Change in river alignment	All watercourse crossings will be considered against SEPA's CAR Practical Guide and level of authorisation justified. • Ensure that there is no hydraulic step at the inlet or outlet of the culvert as this can act as a barrier to fish movement and also cause scouring of bed and banks. • The culvert base should be sufficiently buried below the existing bed to allow a naturalised culvert bed to be maintained. • The culvert should be at least the same width as the natural active channel width, with consideration to low flows and channel migration No water bodies should be crossed unless they have been identified on the watercourse crossing schedule. Where required, temporary track mats and bog mats would be used to cross areas of soft ground. Should Crossing solutions be required, solutions would be used to cross minor watercourses without causing damage to bank integrity and would be specified within Contractor's RAMS.	The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) The Water Act 2014 (Consequential Amendments etc.) Order 2017 Environmental Impact Assessment (Water Management) (Scotland) Regulations 2003 Environmental Liability (Scotland) Regulations 2009

Installation of Access Tracks, Site/Ground Investigation works/ Civils	Private Water Supplies	Contamination of drinking water Disruption to volume and quality of water reaching PWS-fed properties Pollution of groundwaters within PWS catchment Pollutants can strain PWS filtration and treatment systems already in place within properties	The five PWS locations would be surveyed prior to any construction works taking place to determine whether they are still in active use for drinking water and to identify their source location. Any sources identified as potentially at risk following site verification would have additional protection measures put in place. These would include bunding between all construction areas and any potential downslope pathways to the PWS source with at least two lines of silt fencing in addition to the bunding. At-risk PWS sources would also be monitored for the duration of all construction works in the area upslope of the source. Monitoring would begin at least one month prior to construction works taking place within 500 m of the PWS source and would continue for at least two months following reinstatement of all works within 500 m of the PWS source. Monitoring of the source would be undertaken daily while construction works are active within 500 m of the source. It is the Contractors responsibility to assess the work being undertaken and consider the associated hydrological risks as required throughout the works. It is the Contractors responsibility to ensure appropriate mitigation is in place in advance of any works and that they are monitored and documented.	

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Working in or near water	Fish/ Fresh Water Pearl Mussels (FWPM)/ American Signal Crayfish (ASC)	Water pollution Loss in water habitat	It is the contractor's responsibility to consult with the local fisheries trust/board for further detailed information and appropriate mitigation and management for fish, FWPM and ASC. Contractors must liaise and work with the Fisheries trusts as per the Technical Specification. The spawning season needs to be considered for any in-stream activity (such as culverts). The spawning season is October to April. It is the contractor's responsibility to consult with the local fisheries trust/ board for further/ detailed information and appropriate mitigation and management for Fish, FWPM and AS Crayfish. Pollution prevention techniques will be adopted at all interfaces with any water body.	
Working in or near water	Groundwater Dependant Terrestrial Ecosystems (GWDTE)	Loss of habitat Pollution to water or ground environment	GWDTE - under the Water Framework Directive (WFD) the requirement for 'good groundwater status' is dependent upon there being no 'significant damage' to groundwater-dependent terrestrial ecosystems, i.e. groundwater-dependent wetlands. To ascertain if plant communities have the potential to be ground fed, an NVC survey will identify high/ medium risk habitats (as defined by SEPA) that will require consideration, avoidance, mitigation or further hydrological investigation.	

Installation of Access Tracks, Site/Ground Investigation works/ Civils	Excavations and dewatering	Unprotected excavations which are open for long periods of time risk trapping numerous animals which are present or potentially present on site (insert location details). Unmitigated dewatering risks pollution of watercourses and ground water Fish kill/ habitat destruction	Strategies to deal with both Groundwater and Surface water due to heavy rain shall be in place. Sufficient equipment (e.g. pumps) and mitigation as detailed on permits to pump and pollution prevention plans must be on site before excavation work is undertaken 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. 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. The 10 metres distance mentioned is the bare minimum, the expectation is this will increase based on risk assessment and site specific factors. It should be highlighted that buffer distances should take account of topography, vegetation cover and sensitivity of the receiving watercourse	The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013 and amendments Environmental Liability (Scotland) Regulations 2009 Environmental Impact Assessment (Water Management) (Scotland) Regulations 2003 Control of Pollution Act 1974 40 Part II

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Installation of foundations	Concrete and Concrete Washout	High pH of washout water can cause serious negative ecological impact or pollution of private water supplies, ground and surface water (insert details of large pours from slabs, founds or tower founds). Generation of washout waste or waste from over-supply. Offsite risk such as water courses and drainage installations (list known gullies in substations etc) have the potential to transport effluent away from the source. Low flow during a pollution incident reduces the dilution potential and magnifies the resulting impacts.	Washing out of concrete trucks, crane skips and other equipment should be avoided wherever possible. Washing out of any concrete mixer & associated chute, tools or equipment should be carried out in a designated area away from drains and watercourses. Truck washout should be offsite as preference. If required on site this should be chute only (NOT including the drum) and limited to dry brushing where possible. Washing out only permitted into an impermeable container/area which should be covered when not in use. Uncured wash waters and cured material to be disposed of in line with WM3.	Control of Pollution Act 1974 40 Part II The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013 The Water Environment (Controlled Activities) (Scotland)
Installation of underground ducts	Cement Bound Sand (CBS)	Water that is exposed to CBS for a couple of days can cause a higher pH and therefore the water can have a negative environmental impact	Test pH of water exposed to CBS. CBS storage must be in an impermeable surface and at least 20 m away from any watercourse/drainage system	The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013 The Water Environment (Controlled Activities) (Scotland)

Installation of Access Tracks, Site/Ground Investigation works/ Civils	Surface Water (Discharge of surface water runoff into the water environment/ drainage system)	Silt pollution of drainage systems, watercourses and groundwater Habitat destruction (fish spawning beds) Unmitigated drainage of surface water carries the potential to pollute sensitive GWDTEs and cause serious negative ecological impact (delete if irrelevant).	A Surface Water Management Plan shall be in place. Surface water drains and the foul water systems are to be clearly identified on the site prior to any works being carried out. 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. Installation of SuDS (Sustainable Drainage System). 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: The contractor shall produce a pollution prevention and/or surface water management plan and identify likely sources of pollution within the site, particularly those considered to be 'high risk' such as: • Areas of exposed soils during construction; • Dewatering of excavation to SuDS treatment area; • Temporary soil storage areas; • Fuel storage and refuelling activities at site compound; and • Concrete washout area	Control of Pollution Act 1974 40 Part II The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013 The Water Environment (Controlled Activities) (Scotland)

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Horizontal Directional Drilling (HDD)	Water (Release of drilling muds such as bentonite fluid in watercourses)	HDD activity carries the risk of disturbing water environment in the channel and of pollution incidents such as bentonite breakouts (insert details of vulnerable GWDTE and foraging animal such as otter).	Frack out plan shall be in place before HDD works start. This should sit within the Pollution Prevention Plan.	Control of Pollution Act 1974 40 Part II The Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013 The Water Environment (Controlled Activities) (Scotland)
Use of Plant, Machinery and Equipment	Spillage of fuel/oil and chemical into the ground, watercourses/drainage systems	Pollution to ground water/drinking water through fuel and hydraulic oil spillages. Increased cost due to remediation, replenishment of spill controls and down time arising from clean up activity. Decrease in visual amenity of the area around the site. Noise, vibration and air quality implications also arise from plant use.	Keep plant use on site to a minimum (both in terms of operating hours and number of machines present). Consider the use of low ground pressure plant where appropriate and minimise plant movements and journeys. Ensure daily checks are carried out including full inspection of fuel tanks and hydraulic lines. Ensure that lift ratings are observed to minimise the chance of blown hydraulic lines. Use plant nappies and spill kits. An Emergency Response Plan and Pollution Prevention Plan shall be in place to deal with spills and leaks	The Water Environment (Miscellaneous) (Scotland) Regulations 2017 The Environmental Protection (Duty of Care) (Scotland) Regulations 2014 Environmental Protection Act 1990

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Use of Plant, Machinery and Equipment	Re-fuelling operations and COSHH Storage	Improper fuel storage, refuelling procedures or COSHH storage carries the potential to pollute ground / surface water and foul drainage. Spillage of fuel/oil and chemical into the ground, watercourses/drainage systems. Poor fuelling practices lead to localised ground contamination which will require time consuming testing for waste classification purposes, costly remediation efforts. Non-bunded or inappropriate COSHH storage promotes spillages, wasted materials and risks pollution incidents.	Refuelling off-site should be considered to prevent refuelling during works and possible spillage into nearby habitat and water courses. This should be detailed within the Pollution Prevention Plan. Standard practice: Machines will be refuelled minimum of 30 metres away from water courses. Ensure fuel and oil storage tanks are bunded, secured and on impermeable surfaces All funnels, buckets, containers, brushes and other associated equipment should also be kept in a bunded area when not in use. Fuel storage tanks should be locked when not in use to prevent unauthorised access and to reduce the risk of vandalism Place a plant nappy under all static plant and mobile plant during fuelling. Spill kits shall be present with the number on site relevant to the works and risks.	The Water Environment (Miscellaneous) (Scotland) Regulations 2017 The Environmental Protection (Duty of Care) (Scotland) Regulations 2014 Environmental Protection Act 1990 The Water Environment (Oil Storage) (Scotland) Regulations (as amended) The Control of Substances Hazardous to Health (COSHH) Regulations 2002

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Earthworks/ Excavations/ Civil works	Soil Storage/ Stockpiling	Soil degradation - the structure of topsoil can be changed which affects its drainage characteristics and can foster anaerobic activity which alters pH levels and impacts on the ability of plants to grow in it. This can in turn affect wildlife populations. •Soil Compaction •Soil Erosion •Loss of soil organic matter •Soil Poaching •Waterlogging Increase in waste generated if improper soil storage leads to its degraded condition. Loss of topsoil Increased erosion and risk of generating silted runoff from poor stockpiling practices. (insert water courses or features such as GWDTEs at risk).	All identified mitigation requirements for the location to be stripped shall be followed. Soil/substrate types to be segregated for localised storage and subsequent reinstatement 'as was'. Stockpiling to be minimised. Only open trenches / excavations as required by SPT and minimise the time these are left open. Complete offsite disposal of surplus material in a timely fashion to minimise the potential for run-off. Locate soil storage away from watercourses/ drainage systems (minimum 30m). Form bunds of no more than 1.5m tall, cover if necessary and design to shed water. It is the Contractors responsibility to assess the work being undertaken and consider the associated hydrological risks as required throughout the works. It is the Contractors responsibility to ensure appropriate mitigation is in place in advance of any works and are monitored and documented.	Environmental Liability (Scotland) Regulations 2009 The Environmental Protection (Duty of Care) (Scotland) Regulations 2014 Environmental Protection Act 1990 Environmental Liability (Scotland) Regulations SSI 2009/266 SPEN Land of Conduct

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Earthworks/ Excavations/ Civil works	Contaminated land/ground	Nuisance Contamination of watercourses and groundwater. Increase of waste to landfill	Contaminated land/ground identified must be dealt with appropriately i.e. removed by a suitable waste removal company by contractor. Any material contaminated by a spill must also be appropriately dealt with. This should be treated as hazardous substance management and as such the contractor must handle the waste material with appropriate waste management.	Environmental Protection Act (1990) Contaminated Land (Scotland) Regulations. Environmental Liability (Scotland) Regulations. The Environmental Protection (Disposal of Polychlorinated Biphenyls and other Dangerous Substances) (Scotland) Regulations 2000 Persistent Organic Pollutants (POPs) Regulation (EC No 850/2004)

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Earthworks/ Excavations/ Civil works	Archaeological features	Destruction and loss of cultural assets Impact on Scheduled Ancient Monuments and other designated features (list those known to exist here). Extended programs to account for unexpected finds or Archaeological Clerk of Work checks during relevant works.	Refer to and follow guidance and advice within the Archaeological report produced by XXX to plan mitigation works (Appendix X). It is the contractor's responsibility to organise specialists (Archaeologists) and the mitigation required in line with programme and seasonal constraints. All required consents to be in place before works commence in, on or near archaeological features. Contractor to make suitable allowances for unexpected finds even where no archaeological features have been identified on site. Should archaeological remains be discovered unexpectedly during works it is the contractor's responsibility to arrange for archaeologists, licences and consultation with the local archaeological service and Council Archaeologist/ West of Scotland Archaeological Service (WoSAS).	Historic Environment Scotland Act 2014 Ancient Monuments and Archaeological Areas Act 1979 Town and Country Planning (Scotland) Act 1997 The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 Planning (Listed Building Consent and Conservation Area Consent Procedure) (Scotland) Regulations 2015

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Material transport/ Travel/ Waste transport/ Energy use/ Water usage	Air Emission	Air quality alteration Global warming and Climate change	The Contractor shall submit electricity, natural gas and fuel use data. This will help to identify the main sources of fuel use such as site equipment, cabins, vehicles and generators. Reports on carbon impacts and cost of energy use like CO2 footprint of project can be produced by SmartWaste	Road Vehicles (Construction and Use) (Amendment) Regulations 2010 SI 312 Air Quality (Scotland) Regulations 2000 SSI 97 Clean Air Act 1993 Climate Change (Scotland) Act 2009 Environmental Protection Act 1990
Working with or near SF6	Air Emission	Increase in greenhouse gasses Global warming and Climate change	The contractor must ensure that the management of SF6 is carried out taking into consideration all the legal requirements in force. An activity that involves handling of SF6 shall only be carried out by Certified persons as defined in the SF6 regulations	The Fluorinated Greenhouse Gases Regulations 2015 (SI 310) and 2018 amendment

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Earthworks, Construction Traffic	Dust Emission	Air pollution Smothering of local vegetation Impact on local residents	The following measures should be taken to minimize dust generation: • 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.	Control of Pollution Act 1974 40 Part III Environment Act 1995 Environmental Protection Act 1990 Noise and Statutory Nuisance Act 1993 Road Vehicles (Construction and Use) (Amendment) Regulations 2010 SI 312
Road and Construction Traffic	Noise Emission	Impact on local residents Impact in protected species	Respect working hours. All plant/machinery to use only routes for construction traffic. Plant/equipment to be switch off when not in use Plant to be fitted with white noise reversing alarm.	Control of Noise (Codes of Practice for Construction and Open Sites) (Scotland) Order 2002 SSI 104 Noise and Statutory Nuisance Act 1993 Noise Emission in the Environment by Equipment for Use Outdoors Regulations 2001 SI 1701

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
All activities	Waste arising	Use of natural resources/ raw materials/ Potential contamination of land, air and water. Hazardous to human health Increases the burden on landfill site Contributes to land degradation and depletion of natural resources Water and ground pollution Increase in pests on site	Prepare the waste forecast for a project – identify all materials/ waste streams and volumes. Reduce, recycle and avoid producing waste in first place. Focus on material efficiently as this will reduce the amount of waste produced within any given project. Early implementation of a material efficiency-minded strategy also results in a lesser impact upon the environment and a reduction in natural resource depletion. Order what is needed. Use what was ordered. Adapt correct waste segregation process with storage and signage. Incorporate controls for correctly completing the waste transfer notes. Promote and implement waste hierarchy on site. Use SmartWaste, an online database for site waste management.	The Environmental Protection (Duty of Care) (Scotland) Regulations 2014 Environment Act 1995 Environmental Protection Act 1990 Waste Management Licensing (Scotland) Regulations 2011 and amendments Waste (Scotland) Regulations 1996 and amendments

Activity	Environmental Aspect	Environmental Impacts and risks	Mitigation & Management Controls	Relevant Legislation (Non-exhaustive)
Balance of Plant works	Hazardous/ Special waste arisings	Water and land pollution Increase in the burden on landfill site Contributes to land degradation and depletion of natural resources Water and ground pollution	The Contractor shall ensure that all chemicals including lubricating and hydraulic oils to be used onsite are environmentally friendly The Contractor shall comply with Fuels, Oils and Chemical storage regulations like GPP2 and 21 and GBR 22 and 28 The Contractor shall provide spill kits on all of the contractor's sites Where the Contractor undertakes Polychlorinated Biphenyls (PCBs) screening tests the result shall be recorded and returned to SP Transmission Plc. The Contractor shall ensure that PCBs contaminated wastes are segregated from other special/hazardous wastes and handled as per the CEPR.	Controlled Waste Regulations 1992 and amendments The Environmental Protection (Duty of Care) (Scotland) Regulations 2014 Environment Act 1995 Environmental Protection Act 1990 Special Waste Regulations 1996 and amendments Waste Management Licensing (Scotland) Regulations 2011 and amendments Waste (Scotland) Regulations 1996 and amendments

11.3 Environmental Permits and Licences

11.3.1 Existing

As part of the development process for the project SPT have secured the following licences:

[Protected species NUMBER

CAR licence/registration NUMBER

Construction Site Licence NUMBER]

The contractor must monitor compliance with these which may require additional resource and therefore cost. Copies of the licences and their conditions can be seen at Appendix 3.

11.3.2 Further licence requirements

The baseline conditions indicate that there may be a further requirement for consultation with regulators such as SEPA and NatureScot.

The contractor is responsible for arranging any relevant licences (e.g. ecological, archaeological, or SEPA authorisations) and mitigation measures for the works.

12. TRAINING

The Environmental Training requirements of contractors working on SPT projects is detailed in the CEPR (Appendix 2). It states that the contractor shall provide the following:

- Environmental induction/ awareness training for all site personnel in line with identified project specific environmental risks. Environmental Emergency Preparedness and Response specific training for key identified roles shall include any training that will be required to comply with specific commitments/ mitigations and environmental good practice;
- Environmental tool box talk sessions to cover specific relevant environmental issues appropriate to the construction activities being undertaken at the time. The provision of evidence of training for all staff associated with onsite activities shall be maintained and retained by all Contractors;
- A training plan identifying all environmental training provided (including toolbox talk topics covered);
- The Contractor shall test their environmental emergency response plan by carrying out a spill response drill at the beginning of the project and annually thereafter.

13. MONITORING AND MEASURING

13.1 Site Inspections

The SPT 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 SPT Projects Environmental Advisor with a two week look ahead of working activities. Joint inspections of the site will be agreed to by SPT 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 works and uploading the findings to ProjectWise.

13.2 Audits

SPT Projects have the right to audit the contractor at any time during the works. All contractors will be given at least 10 workings 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 SPT Projects of their audit schedule upon contract award.

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

14. APPENDIX 1: PLANNING CONDITIONS AND THE LOCATION WITHIN DOCUMENT (EXAMPLE ONLY)

Condition No.	Planning Condition Requirement	Location in Document
11	Ecological Clerk of Works	Table 3: Breakdown of Contractor Roles and Responsibilities -ECoW - page 9 of the Contractors Environmental Performance Requirements (CEPR)
12a.	site waste management plan	Section 11.12.2 (page 22 CEPR)
12b.	details of the formation of the construction compound	[Insert relevant section of the Construction Phase Plan] An Example Compound Layout drawing is included in Appendix 6
12c.	dust management	Table 5. Projects Aspects and Impacts Register 'Dust Management' (page 13 CEMP)
12d.	site specific details for management and operation of any concrete batching plant (including disposal of pH rich waste water and substances)	Table 5. Projects Aspects and Impacts Register 'Use of Concrete and Concrete Washout' (page 13 CEMP)
12e.	details of measures to be taken to prevent loose or deleterious material being deposited on the local road network	[Insert relevant section of the Traffic Management Plan]
12f.	a pollution prevention plan	Section 11.7 Pollution Prevention Planning (page 14 CEPR)
12g.	soil storage and management	Table 5. Projects Aspects and Impacts Register 'Soil Storage/ Stockpiling' (page 13 CEMP)
12h.	a peat management plan	Section 10.2 (page 6 CEPR). A Peat Management Plan is a document the contractor is to provide on contract award
12i.	A drainage management strategy, demonstrating how all surface and waste water arising during and after development will be managed and prevented from polluting any watercourses or sources	Section 11.7 Pollution Prevention Planning (page 14 CEPR)
12j.	a surface water and groundwater management and treatment plan, including details of the separation of clean and dirty water drains, and location of settlement lagoons for silt laden water	Section 10.2 (page 6 CEPR). A Surface Water Management Plan is a document the contractor is to provide on contract award
12k.	sewage disposal and treatment	[Insert relevant section of the Construction Phase Plan]

12l.	temporary site illumination;	[Insert relevant section of the Construction Phase Plan]
12m.	the construction of the access into the site	Table 5. Projects Aspects and Impacts Register 'Access Installation' (page 13 CEMP)
12n.	the method of construction of tower foundations and erection of steel lattices	[Insert relevant section of the Construction Phase Plan]
12o.	details of watercourse crossings	Table 3. Baseline Conditions (page 11 CEMP) and Table 5. Projects Aspects and Impacts Register 'Water Crossings' (page 13 CEMP)
12p.	post-construction restoration/ reinstatement of the working areas not required during the operation of the Development, including construction access tracks, borrow pits, construction compound, storage areas, laydown areas, access tracks, passing places and other construction areas.	Section 11.11 Site Restoration (page 19 CEPR)
12q.	a wetland ecosystems survey and mitigation plan	Section 11.9.2 j (page 19 CEPR)
12r.	a felling and tree management plan	Section 11.9.2 i (page 19 CEPR)
13.	Pre-Construction Species Survey Work	Section 11.9.1 Pre-Construction Checks and Surveys (page 18 CEPR)
16.	Habitat Management Plan	Section 10.2 (page 6 CEPR). A Habitat Management Plan is a document the contractor is to provide on contract award
17.	Programme of Archaeological Works/ Archaeological Clerk of Works	Table 5. Projects Aspects and Impacts Register ' Work near Archaeological features ' (page 13 CEMP)
18.	Private Water Supplies	Table 3. Baseline Conditions (page 11 CEMP) and Section 11.8a Hydrology (page 17 CEPR)

15. APPENDIX 2: CONTRACTORS ENVIRONMENTAL PERFORMANCE REQUIREMENTS (CEPR)

Attached separately as a PDF

16. APPENDIX 3: ENVIRONMENTAL REPORTS

Reference the reports here.

- Environment Statement
- Ecology
- Hydrology
- Archaeology
- Geotechnical
- Peat….etc

Attached separately as a PDF

17. APPENDIX 4: SPT SPECIES PROTECTION PLANS

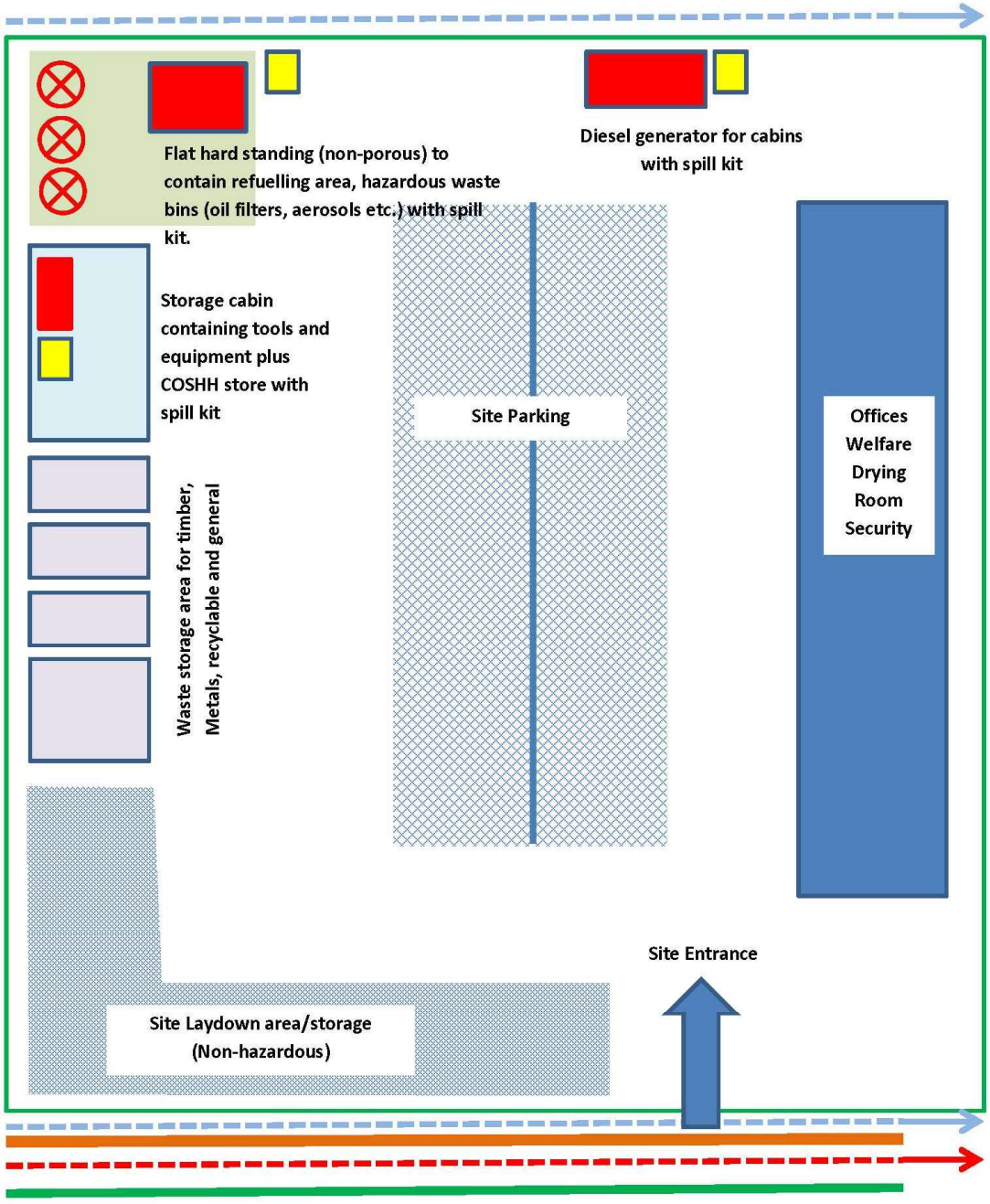
Attached separately as a PDF

18. APPENDIX 5: PERMITS AND LICENCES

Attached separately as a PDF

19. APPENDIX 6: EXAMPLE COMPOUND LAYOUT

CLEAN WATER Cut off Ditch upslope and down slope of compound to manage surface water ingress to site. Additional measure could include check dams within the ditch to control high flows.



A dirty water cut off ditch taking run off from the access track to be treated at a suitable location. Alongside the ditch is additional silt mitigation i.e. fencing to aid control of run off from the watercourse down slope.

Water course downslope of site