OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (CEMP)

GLENTARKEN WIND FARM

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Contents

Glossary

The following defines terms used throughout this document:

Archaeological Clerk of Works (ACoW) – The ACoW is an independent specialist appointed by the Employer. In accordance with relevant planning conditions, applicable regulations and best practice, the ACoW monitors the construction works to ensure protection of cultural heritage assets and buried archaeological remains. The ACoW provides advice to the Employer and Contractor where required.

Biodiversity Net Gain (BNG) – Biodiversity Net Gain is a way of creating and improving natural habitats, ensuring that development has a measurably positive impact on biodiversity, compared to what was there before development. SSER has committed to implementing 10% BNG on major onshore projects consented from 2025. In England, it became mandatory from February 12th 2024 to implement 10% BNG on projects.

Construction Runoff – Surface water runoff from construction works areas that may contain suspended solids, silt or other organic matter that requires treatment before discharging to the water environment.

Contract – Works Contract between SSE Renewables and the Contractor(s) undertaking construction of Glentarken Wind Farm, including enabling works.

Contractor / Principal Contractor (PC) – As defined in the Construction (Design & Management) Regulations 2015 (as amended) or equivalent, the Principal Contractor is appointed by SSE Renewables and has control over the construction phase of the development. There may be a number of contractors (and sub-contractors) employed by the Principal Contractor or working under their management.

Contractor's Environmental Representative – The contractors appointed environmental representative who will manage and address site environmental risks or issues to ensure that the contractors' works are compliant with the CEMP. The Environmental Representative may be part of the contractor's core staff or may be outsourced to an appropriate environmental consultancy. The required competencies are set out in this CEMP.

Development – All aspects of the proposed project prior to consent. Environmental planning commitments and mitigation outlined in the accompanying EIA Report (or equivalent) have been transposed into the Construction and Environmental Management Plan (CEMP).

Ecological Clerk of Works (ECoW) – The ECoW is an independent specialist appointed by the Employer, with an competent ecological background and practical experience of ecological risks or impacts to protected species and habitats associated with construction. In accordance with relevant planning conditions, applicable regulations and best practice, the ECoW monitors ecological compliance and provides advice to the Employer and Contractor where required. The ECoW role and associated responsibility is outlined in this document.

EIAR - Environmental Impact Assessment Report, submitted with the project planning application.

Employer – The entity commissioning the construction of the project and associated civil infrastructure.

Environmental Constraints Map – A drawing that displays relevant data from ecological surveys, archaeological findings and other sources. This data may include protected features (e.g. protected species) which require exclusion zones around them to prevent harm in accordance with law.

Environmental Risk Map – A drawing that highlights working areas in close proximity to environmentally sensitive locations (e.g. rivers, protected habitats, protected species or archaeology).

Environmental Risk Management Plans (ERMP) – Typically a drawing that develops the locations highlighted by the Environmental Risk Map. These plans are used to work out the best way to undertake construction activities whilst protecting the environment. It will include existing environmental data (from

the Environmental Constraints Map e.g. rivers, protected species), a visual representation of planned work activities (e.g. water crossing, track construction) and the measures the Contractor will use to manage environmental impacts (e.g. cut off drainage, exclusion fencing).

Greenfield Runoff – Surface water runoff from adjacent undisturbed land that does not require treatment prior to discharging across land. No runoff from greenfield shall be discharged directly to watercourses or water bodies.

Planning Consent and/or Planning Conditions – Requirements set out within planning permission for the Project.

Pre-commencement Ecological Survey – Site surveys undertaken up to 12 months prior to the commencement of construction. They are used to advise on specific measures or authorisations that might be necessary prior to the commencement of construction (e.g. disturbance licence).

Pre-construction Ecological Surveys –These are surveys undertaken immediately prior to works (e.g. within days or a week) starting in an area. They may also be undertaken regularly during works in order to ensure that nothing has changed that might require consideration (e.g. new water vole burrow or bird nest within working area).

Reinstatement – Reinstatement works undertaken during construction to redress impacts on the landscape as part of the construction process. Reinstatement is undertaken as soon as possible following the construction works in each area, such as the re-dressing of road and track verges and turbine bases (and other areas that may be disturbed as a result of the construction process). Re-seeding / hydro-seeding may be part of reinstatement measures where redressing proves unsuccessful.

Restoration – Restoration works are long-term measures aimed to restore (and in some instances improve / enhance) the ecological status of the development with regard to species and / or habitat. Restoration measures will be largely covered in the site's Biodiversity Management Plan, where applicable. Re-seeding / hydro-seeding may be part of restoration works where reinstatement works are found to have been unsuccessful with regard to establishing plant growth.

Part 1 Construction Environmental Management Plan (CEMP)

1. Introduction

1.0. Construction Environmental Management: Aims and Objectives

1.0.1 The principal objective of this document is to provide information on appropriate measures in the avoidance, minimisation and control of adverse, environmental impact associated with the works. Furthermore, this document aims to define good practice as well as specific commitments relating to environmental protection as identified in the Environmental Impact Assessment Report (EIAR) or equivalent. The EIAR and other supporting documents can be found on the SSE Renewables Website.

1.0.2 An Ecological Clerk of Works (ECoW) will be appointed by the Employer to monitor compliance of ecological provisions of the CEMP over the duration of the works. This appointment and the responsibilities of the position are set out within Section 3.

1.1. CEMP Document Development

1.1.1 This CEMP is currently in outline format, setting out standard mitigation measures to address the temporary effects associated with construction. Prior to the commencement of development, following baseline surveys undertaken in accordance with the EIAR, the CEMP will be developed to include specific protection and monitoring plans relevant to the construction period.

1.1.2 The final CEMP will form part of the Contractors Works Contract, as set out below, and will be read and implemented onsite in conjunction with industry good practice, published guidance documents and other documents referred to within the CEMP.

1.2. Works Contract

1.2.1 The CEMP forms part of the Works Contract (hereafter, the Contract), between SSE Renewables and the Contractor(s) undertaking construction of Glentarken Wind Farm, including enabling works. The methods and principles contained herein, are in addition to environmental legislation, all of which will be adhered to by the Contractor in developing and refining the detailed design, risk assessment and construction method statements and other plans relating to environmental management.

1.2.2 Should the Employer or ECoW identify any failure to comply with the requirements of this document, the Contractor's own plans, requirements set out within the planning consent or the law, then the Employer may stop the associated works until such time as the failure is rectified. Any associated cost or time delay incurred will be borne by the Contractor.

1.2.3 The Contractor submits all relevant information as detailed in this document to the Employer for acceptance in accordance with the Contract provisions. No works will commence prior to the Employer's acceptance.

1.2.4 Once agreed, the Employer provides the Contractor with an electronic copy of the CEMP which the Contractor maintains for the duration of the works.

2. Contractor's Environmental Representative

2.1. Overview and term of appointment

2.1.1 The Contractor is required to appoint an Environmental Representative who is appropriately competent and experienced in environmental management in a construction setting (i.e. holds a minimum of 5 years directly relevant experience or as otherwise agreed with Employer).

2.1.2 The Contractor demonstrates the competence of the Environmental Representative to the Employer via submission of relevant information (e.g. CV, training records, membership records) for acceptance 4 weeks prior to commencement of construction works.

2.1.3 To comply with the requirements set out within this CEMP, the Contractor's Environmental Representative will provide management and support on all environmental matters to the Contractor including the preparation of all required pre-construction information and Environmental Risk Management Plans (as set out in Section 7.4). The named person will ensure Contractor compliance with the CEMP and all other environmental related plans, consents and licenses and will be a full-time site-based resource, unless otherwise agreed with the Employer.

2.2. Environmental Authorisations

2.2.1 The Contractor is responsible for ensuring all necessary consents, licences and permissions for their activities are in place in accordance with relevant legislation governing the protection of the environment prior to commencing works. Planning consent for the project is the responsibility of the Employer, however the Contractor will obtain appropriate activity specific authorisations. This is anticipated to include, and may not be limited to, those set out in Section 13.

2.3. Contractor's Responsibility to Maintain Documentation

2.3.1 A copy of this document and related files and documents will be kept in the site offices for the duration of the site works and will be made available for review at any time. Upon completion of the construction works, the Contractor submits a complete electronic copy of the final set of information to the Employer for their records.

2.4. Progress reporting

2.4.1 The Contractor's Environmental Representative will ensure that the Contractor's Monthly Progress Report includes relevant information pertinent to environmental performance. This shall include, amongst other things, detail relating to (i) monitoring undertaken (e.g. temporary drainage, waste management, pollution prevention etc.), (ii) incidences of non-compliance recorded and any remedial measures implemented to address non-compliance. (iii) environmental incidents and emergency responses and (iv) any examples of good/best practice.

2.5. Meetings and Briefings

2.5.1 The Contractor's Environmental Representative will establish and chair a weekly environment meeting to provide a forum for discussion centred around environmental performance as measured against compliance with the CEMP. Attendees will include representatives from the Employer, Contractor and relevant sub-contractors.

3. The Ecological Clerk of Works (ECoW)

3.1. Overview and Term of Appointment

3.1.1 An ECoW will be appointed and employed as an independent consultant by the Employer. In advance of the commencement of development, where required this appointment will be approved by the Planning Authority after submission of qualifications and experience details.

3.1.2 If required, the Employer will advise the Planning Authority as soon as reasonably practicable if the ECoW is replaced.

3.1.3 The ECoW role extends as a minimum for the duration of the works to construct the Project and for post-construction reinstatement works. The scale of the project may require the need for more than one ECoW.

3.1.4 The ECoW will prepare or review the Species Protection Plans, Breeding Bird Protection Plans and undertake the necessary pre-commencement ecological surveys. These surveys will be used to maintain the Constraints Map (Section 7.2) and inform the Contractor for update of the Environmental Risk Map (Section 7.3).

3.1.5 The ECoW will monitor compliance with the ecological and ornithological commitments in the CEMP and other documentation (e.g. Peat Management Plan, EIAR).

3.1.6 In the event of non-compliance, inadequate control, protection measures, or area of concern the ECoW will immediately inform the Employer and Contractor. This may be verbally in the first instance for urgency and followed up in writing utilising the Contractor's safety and environmental reporting system to allow mitigation tracking. The Contractor will undertake action to avoid, minimise and mitigate adverse environmental effects. Incidents deemed as being more serious will be escalated through the reporting procedure set out in Section 6.

3.1.7 The Contractor consults with the ECoW prior to undertaking specific works as detailed below and considers the ECoW's advice at all times. The ECoW ensures that records are maintained to support key decisions and advice given to the Contractor, including those set out in Section 3.3.

3.1.8 The ECoW will report findings, observations, and recommendations to the Contractor and Employer.

3.1.9 The ECoW assists the Employer with the supply of relevant information for compliance assessment.

3.1.10 The ECoW is an advisory, oversight and monitoring role. This is not a replacement or substitute for the Contractor's Environmental Representative (Section 2) or defers the Contractor's responsibility to implement good environmental practice.

3.2. ECOW Authority to Order a Stop

3.2.1 Where the ECoW identifies that works being undertaken by the Contractor, that could lead to an incidence of non-compliance with the planning conditions or measures detailed in the EIA Report, CEMP or any environmental legislation, the ECoW informs the Employer at the earliest practical opportunity. On advice of the ECoW the Employer may stop the works or parts thereof as appropriate.

3.2.2 Works may not re-commence (following a stop as described above) unless and until the ECoW has confirmed in writing that they are satisfied that such measures have been actioned to remediate the non-compliance.

3.3. Review of Contractor Proposals and Monitoring Compliance

Review of Contractor Plans and Documentation

3.3.1 The ECoW is to be informed of proposed new construction areas at least two weeks in advance of proposed works. The ECoW will implement pre-works surveys and advise on control methods in accordance with Section 7 Environmental Risk Management.

Compliance Monitoring

3.3.2 The ECoW will monitor Contractor implementation of the ecological requirements set out within this CEMP.

3.3.3 Further responsibilities of the ECoW, relating to specific activities, is set out within the following sections of this document:

- Pollution prevention and mitigation, Section 10.
- Temporary drainage requirements, Section 11 and with reference to Appendix 3 Typical Drainage Schematics.
- Water crossings, Section 13.
- Species and habitat protections in relation to construction activities, Section 15 Ecological Protection Plans.
- Excavation, soil and peat handling, Section 17 and with reference to Appendix 4 Peat Depth Drawings.
- Reinstatement, Section 18.

3.4. Inspection and Reporting

Weekly Inspection and Log

3.4.1 The ECoW conducts weekly inspection of the construction site. This will include a visual assessment of the effectiveness of environmental management (e.g. site pollution prevention measures).

3.4.2 The ECoW keeps a record of the following:

- pre-works or pre-clearance checking surveys (in the days running up to works initiating in an area for birds, species and habitats).
- animal sightings and signs (including birds, in addition to other site ornithological monitoring).
- weekly checks on the effectiveness and integrity of silt and pollution prevention measures.
- record of tasks carried out and written record of all verbal advice given.

3.4.3 The ECoW issues a weekly log of the above, updating the Environmental Constraints Map (where required) and issues it to the Contractor and Employer, within three working days of week end (unless otherwise agreed with the Employer). This is in addition to immediate notification in response to observations, as set out in Section 3.

3.4.4 Observations, actions and progress on challenges raised in the ECoW's weekly log will be discussed at the site weekly environmental meetings (Section 4.1).

Environmental Data

3.4.5 The ECoW maintains a record of field recordings, including GPS references, made during the construction period. This data will be made available to the Employer in an ESRI Shapefile format.

Final Inspection and Report

3.4.6 On completion of works the ECoW produces a final report to the Employer documenting the ecological management of the works.

3.4.7 The ECoW will map all areas reinstated using GIS, maintaining this record throughout the construction period and provide electronically to the Employer at handover. This will include areas identified as turves, hydro seeded, or still to be seeded within the 2 Year defect period.

3.4.8 The ECoW undertakes a final inspection of reinstatement, as recorded above (Section 3.4) and as described in Section 18.5. The ECoW establishes fixed point photography locations for future monitoring, with baseline photographs taken at handover to assess habitat condition.

3.5. Meetings and Briefings

Site Meetings

3.5.1 The ECoW will attend the weekly site environmental meeting and highlight/comment on all ecological risks and mitigations required.

Site Briefings

3.5.2 The ECoW will deliver Tool Box Talks on current ecological constraints and mitigations as required. Task specific briefings will include, and not be limited to, specific controls in place to protect habitats and species such as exclusion zones.

4. Communications

4.1. Environmental Meetings

4.1.1 Prior to the commencement of works, the Employer will convene a meeting with the relevant contractor parties to ensure full awareness of the content of the CEMP, in preparation for site set up of environmental controls and provisions and to ensure introductions to key environmental personnel for the Employer and Contractor are established.

4.1.2 Following mobilisation, the Contractor will convene a weekly environmental meeting with representation from SSER (Site Supervisor and Project Environment Manager), ECoW and Contractor Environmental Representative.

4.1.3 This meeting will review ongoing environmental controls and a lookahead at planned works and potential environmental risks and constraints in such areas. It will include the following reoccurring topics:

- review the effectiveness of mitigation / controls as construction progresses in the context of ecological and environmental mitigation.
- discuss construction programme for the following week / fortnight look-ahead and agree actions on these matters, advising on any newly identified ecological constraints, any requirement for TBT or induction environmental updates required.
- Consider local weather forecast and potential implications for the above.
- Discuss incidents and the closure of incidents (as required).

4.2. Environmental Audits

4.2.1 Audits may be completed at any time by the Employer, but at least one per quarter. These will be arranged in advance with notice provided to the Contractor from the Employer (i.e. at least one week). All completed audit forms (and records of corrective action and close outs) must be filed.

4.2.2 Non-compliances identified by the Employer must be addressed immediately where there is a serious risk (e.g. of pollution) or resolved within two weeks.

4.2.3 The Contractor's Environmental Representative undertakes a programme of environmental audits to satisfy conformance with CEMP principles, including audits of their sub-contractors.

4.3. Provision of Environmental Information

4.3.1 The Contractor provides and maintains project environmental notice board(s) which are positioned to ensure that all working parties have the opportunity to review a notice board on a daily basis. As a minimum this will include one notice board to be placed in each compound.

4.3.2 The environmental notice boards are maintained by the Contractor's Environmental Representative and shall be updated at least monthly. As a minimum, the notice boards contain:

- Environmental Risk Map illustrating the location of the key risks and required exclusion zones / buffer zones and location of emergency response equipment, as required by the CEMP.
- Key contact numbers and responsible personnel identified within the Environmental Incident and Emergency Response Plan (EIERP**)** (see Section 6).
- A copy of all regulatory authorisations (e.g. licences) relevant to the work activities being undertaken.

5. Site Induction and Regular Briefings

5.1.1 The Contractor ensures that all contractor employees, sub-contractors, suppliers, and other visitors to the site are made aware of the content of this document that is applicable to them. Accordingly, environmental specific induction training will be prepared by the Contractor and presented to all categories of personnel working and visiting the site.

5.1.2 As a minimum, the following information will be provided to all inductees:

- Identification of specific environmental risks associated with the work to be undertaken on site by the inductee, including relevant Environmental Risk Management Plans (Section 7.4).
- Environmental Incident and Emergency Response Plan (including specific Environmental Communication Plan requirements and reporting of incidents as set out in Section 6).
- Site induction will include contact details for all environmental personnel and instruction on the circumstances when the ECoW should be contacted, and the relevant phone number.

5.2. Toolbox Talks and Training

5.2.1 During construction, on-going reinforcement and awareness of environmental training is to be undertaken. As part of regular toolbox talks, topics set out within CEMP sections and specific environmental issues arising on site, will be discussed. Toolbox talks and training will be delivered by the Contractor or Contractor's Environmental Representative, or by specialist personnel onsite (e.g. ECoW, ACoW, etc.) as required.

5.2.2 Additional toolbox talks shall be delivered based on circumstances such as new operatives or subcontractors starting on site, occurrence of environmental incidents or result of audit findings.

5.2.3 Specifically, the Contractor provides, as a minimum, the following environmental training prior to the start of construction and for all new personnel during construction:

- Training on the effective **use of spill kits** (on ground and in surface waters), to be provided on a regular basis (to account for staff/subcontractor changes etc). Training to be undertaken by a suitably qualified individual.
- Training on **silt mitigation** e.g. effective installation of silt fencing etc., silt mitigation measures to relevant construction operatives.
- Know what failing mitigation looks like, the **incident reporting process** and who to contact when.
- **Pollution Controls** e.g. use of plant nappies for ground protection from plant and machinery, siting of stationary plant and machinery on level ground and distanced from environmental receptors such as water course, locked bowsers, non-return valves to prevent leaks etc.
- **Correct storage and handling** of strata and subsurface materials to ensure good separation of turves, peat and mineral material, to ensure later successful reinstatement.
- **Preservation of Turves** are vital to successful reinstatement and all turves will be kept and managed for all ground clearance works. Mixing of materials during excavation is strictly prohibited.
- **Refuelling -** dedicated areas for refuelling, use of browsers and secure storage of hazardous materials such as oil, diesel, use of non-return valves to prevent leaks etc.

5.2.4 The Contractor maintains records of all toolbox talks and training and makes these records available to the Employer where requested.

6. Environmental Incident and Emergency Response

6.1.1 The Contractor prepares a detailed Environmental Incident and Emergency Response Plan (EIERP). This must include a key contacts list (internal to the project and Employer) as well as emergency external contacts (e.g. spills contractor, all applicable regulators) to enable timely appropriate response.

6.2. Incident Recording

6.2.1 An SSE Safety and Environmental Awareness Report (SEAR) is required to be completed for any potential or actual environmental incident or emergency which occurs or is noted on site.

6.2.2 These are to be reported by the Contractor to Employer within 30-minutes as set out within the Site Incident Response Plan. The plan will contain contact details for the Employer's Project Manager, Environment Manager and SHW Manager as a minimum.

6.2.3 The Employer will assess the significance of the incident against the thresholds provided in Figure 1 (in keeping with the requirement of SSE Incident Reporting Management and Investigation Standard in Appendix 2) and where they are breached a 30-minute report will be raised using the 24 hour reporting line.

Figure 1 Environmental Impact Classification

Appendix C – Environmental Impact Classification

Impact Ranking	Permit or Licence breach	Environmental Impact - No Permit	Report to Regulator
Catastrophic	Impact of international environmental significance		
Severe	Impact of national environmental significance		
Major	Significant breach of limit (more than one gross breach - more than 20% of emission limit or >1 pH unit) Planning condition breach giving rise to formal enforcement action Prohibited activity (undertaking activity without permit) giving rise to formal enforcement action	• Damage to ecosystem over 1km (water) or 1 km^2 (land) • Fish kill >100 • release >10,000 litres of oil or chemicals to land • releases >100 litres of oil or chemicals to inland waters • releases >1,000 litres of oil or chemicals to offshore waters • materially discolours a watercourse over 3km • releases >50kg SF_6	Permit – Mandatory Non-Permit - Mandatory
Serious	Single gross breach (more than 20% of emission limit or >1 pH unit) of limit Frequent and repeated minor limit breach Planning condition breach giving rise to multiple complaints and/or regulatory intervention Prohibited activity (undertaking activity without permit)	• Damage to ecosystem <1km (water) or <1 km^2 (land) • Fish kill >10 - <100 • affects Protected Species or their habitats • releases >100 - 10,000 litres of oil or chemicals to land • releases >10 - 100 litres of oil or chemicals to inland waters • releases >100 - <1,000 litres of oil or chemicals to offshore waters • materially discolours a watercourse >100m - <3km • systematic failure of waste management systems • involves hazardous / special waste • releases >10 -50kg SF_6	Permit – Mandatory Non-Permit - Mandatory
Minor	Minor limit breach (less than 10% of the emission limit or <1 pH unit) Planning condition breach Breach of permit/licence condition not related to emission limit values	• Limited and localised damage to ecosystem <10m (water) or <10 m^2 (land) • Fish kill <10 • gives rise to an isolated Valid Complaint • releases >10 - <100 litres of oil or chemicals to land • releases >1 - 10 litres of oil or chemicals to inland waters • releases >10 - <100 litres of oil or chemicals to offshore waters • materially discolours a watercourse >10m – 100m • releases 5 - 10kg SF_6 • isolated waste management incident not involving special / hazardous waste • is not easily recoverable	Permit – Mandatory Non-Permit – Mandatory if oil/substance released can impact watercourse or sensitive habitat, otherwise Voluntary
Incidental		• is not classified as Minor or more severe; and • has limited material impact; and • is easily recoverable; and • does not cause Valid Complaints	Non-Permit – reporting not required

Notes

Where the release of oil or chemicals is contained in an engineered bund, hard standing, contained surface water drainage system served by an interceptor (and does not enter surface waters, sea or public/municipal drainage systems), preventing the release of oil or chemicals to ground or the environment, and is fully recoverable, the impact classification can be reduced by one level.

For any offshore incidents located within or in close proximity of a protected site (e.g. Special Protection Area, Special Area of Conservation, Marine Protected Area, Marine Conservation Zone), consideration should be given to the spill quantities and potential impacts on the designating features of the protected sites (e.g. seabirds, benthic habitat, marine mammals etc). In such cases the impact classification can be increased by one level.

A valid complaint is a complaint from a Stakeholder leading to regulatory intervention or damage to reputation.

Major environmental incidents will result in one or all of the following - major environmental impact and/or major permit breach and/or formal regulator intervention and/or potential to damage SSE's reputation.

7. Environmental Risk Management

7.1.1 The process of environmental information flow to advise the development is provided below.

7.2. Environmental Constraints Map

7.2.1 The **Environmental Constraints Map** (Appendix 1) is based on survey data collected prior to construction. This illustrates land constraints and environmental sensitivities (e.g. protected areas, watercourses and appropriate buffers, archaeology, wildlife and exclusion zones).

7.2.2 The ECoW will maintain the Environmental Constraints Map, updating it with new survey data when available, e.g. throughout the ecological survey season.

7.3. Environmental Risk Map

7.3.1 Using the information contained within the Environmental Constraints Map, the Contractor, in partnership with the ECoW, produces and maintains an **Environmental Risk Map**. This map will illustrate environmentally sensitive areas identified (within Constraints Map) and potential sources of pollution or other hazards associated with planned construction activities in these areas. Potential hazards may include, but are not limited to; fuel handling, concrete washout areas, waste and material storage areas, works around watercourses.

7.3.2 The Environmental Risk Map will be updated by the Contractor in consultation with the ECoW (Section 3.1) to include any further controls or exclusion zones. In accordance with Section 5.2, any update will trigger a toolbox talk to clearly communicate the change and offer opportunity for any necessary clarifications.

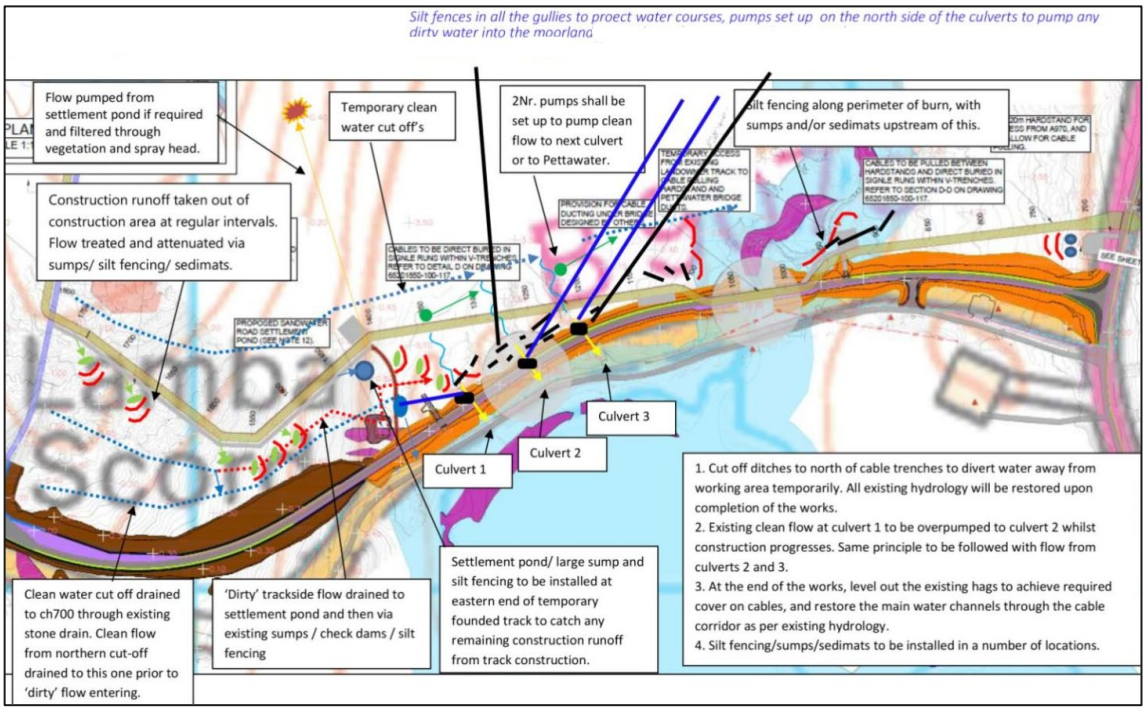
7.4. Environmental Risk Management Plans (ERMP)

7.4.1 The Contractor further provides and maintains detailed **Environmental Risk Management Plans (ERMPs**) for specific sensitive locations (e.g. habitats, species shelters or surface water) defined in the Environmental Risk Map as per Section 7.3) and require specific environmental safeguards. Additional relevant information such as drainage paths, habitat and exclusion areas should be included to support accurate planning of work in the context of the locations.

7.4.2 Prior to works in a sensitive area, the Contractor will prepare an ERMP for each location, allowing at least 10 working days for acceptance by the Employer and ECoW. The plan will contain task specific mitigation measures associated with the potential risks identified. Mitigation measures must be maintained and monitored once the plan is in place and adapted as required for any changing circumstances. Such plans will be part of the weekly environment meeting.

7.4.3 An example plan is provided in Figure 2 below.

Figure 2 Example Environmental Risk Management Plan



7.4.4 The Contractor will coordinate feedback from the Contractor's Environmental Representative, SSER Environmental Manager, ECoW, ACoW, and any other relevant disciplines for acceptance by the Employer.

7.4.5 All parties will retain copies of the agreed plans in the event of an incident and subsequent investigation by Contractor, Employer or regulator.

7.4.6 These plans will be used to measure the effectiveness of the mitigation installed and will be improved upon where environmental circumstances, or changes in work details, require them to be. The Contractor's Environmental Representative will monitor this. Where significant changes are required, outwith the normal evolution of the mitigation requirements, the Contractor will re-consult with the Employer.

8. CEMP Departures

8.1.1 During the construction of the Development, it is considered reasonable to presume that certain eventualities will partially or fully preclude the implementation of specific standards and processes outlined within the CEMP. In these events, the Contractor provides justification to the Employer via the Technical Change Control Procedure set out within the Works Contract. The Technical Query (TQ) must outline the reasons for any departure from this CEMP and detail a proposed alternative approach that does not compromise environmental protection.

8.1.2 Proposals must take cognisance of available guidance (e.g. from regulators and good practice) and specific constraints set out within this CEMP and its appendices. The alternative proposals shall only be adopted following consideration and acceptance by the Employer following consultation with the ECoW where relevant.

8.1.3 Material changes will require consultation with the Planning Authority and relevant consultees, in accordance with micro-siting requirements (Section 9). The Contractor includes any additional requirements in the Technical Query and an updated or new ERMP (Section 7.4) to detail how compliance with the consent shall be maintained.

9. Micro-siting

9.1.1 Project infrastructure (e.g. wind turbines, buildings, masts, areas of hardstanding and tracks) may be adjusted by micro-siting within the site, where permitted to do so within the planning permission/consent.

9.1.2 All micro-siting must be pre-agreed with the Employer and ECoW in advance of works, to ensure sensitive species, or habitats are not affected, and that any areas identified for wider BNG works are not undermined.

9.1.3 Any relocation of site infrastructure beyond the planning permitted micro-siting allowance must be approved in writing by the Planning Authority, NatureScot and SEPA, before works commence. It is the responsibility of the Contractor to obtain such permissions for areas outwith the permitted micro-siting allowance. Such areas must be pre-agreed with the Employer and ECoW to ensure sensitive species, or habitats are not affected, and that any areas identified for wider BNG works are not undermined and that land permission remains valid.

9.1.4 A plan showing the final as built position of all infrastructure forming the project shall be submitted to the Employer within one month of the completion of the works. The plan shall also specify areas where micro-siting has taken place and, for each instance, be accompanied by copies of the ECoW or Planning Authority's approval, as applicable.

10. Pollution Prevention and Mitigation

10.1. Responsibility

10.1.1 The Contractor is responsible for pollution prevention and monitoring for the duration of the contract and until such time as permanent measures, such as permanent drainage and silt mitigation controls, are deemed to be adequate and appropriately constructed. This responsibility will include the actions of any third party who is sub-contracted by the Contractor or otherwise involved in the project.

10.1.2 The Contractor may consider the use of drones for widespread monitoring if permissible. Prior to use, this must be checked with the Employer to ensure there are no restrictions in place i.e. Schedule 1 licensed birds nesting, airport restrictions.

10.1.3 The Contractor is responsible for the set out, formation and management of all compound and welfare areas, in compliance with this CEMP and all relevant regulations (e.g. Pollution preventions, Waste Management) as specified within this section.

10.1.4 The Contractor is familiar with and executes works in accordance with good practice. This includes, and is not limited to, NetRegs' SEPA Guidance for Pollution prevention (GPPs), Engineering Guidance and other regulatory or industry good practice guideline documents.

10.1.5 All works must be in accordance with Water Environment (Controlled Activities) (Scotland) Regulations (as amended) ("CAR"), and, where applicable, authorisations must be obtained in advance of relevant works. Anticipated activities for construction of this project are set out in Section 13.

10.1.6 The Contractor is responsible for ensuring that all materials ordered or brought to site listed as hazardous under the Control of Substances Hazardous to Health (COSHH) Regulations are accompanied with a Material Safety Data Sheet (hazardous information sheet) and COSHH Assessment for the safe use of each substance. The Contractor complies with the COSHH Regulations. This includes appropriate containers that are secured, labelled and bunded, and stored in a manner that protects from rainwater ingress or risk of breach from vehicle collisions, in a dedicated material storage area.

10.1.7 The Contractor must provide ERMPs (as set out in Section 7.4) that appropriately address pollution prevention good practice, including any further measures set out in this document. This CEMP forms part of the Works Contract (Section 1).

10.1.8 The Contractor ensures that all staff and subcontractors working on site will be familiar with pollution prevention and mitigation measures as detailed in this document; this includes subcontractors, Employer's direct contractors and other Employer's representatives working on the site.

10.1.9 Any deviations to the above will be subject to discussion with the Employer and assessed as a departure from the CEMP in keeping with Section 8.

10.2. Water Pollution Prevention Measures

10.2.1 The following points (not exhaustive) indicate pollution prevention measures in accordance with those highlighted within the guidelines referenced in this document and the EIA Report. Pollution Prevention measures relating to specific tasks are also detailed in the respective sections of this document.

- Any material or substance which could cause pollution, including fuels/oils, wet cement, raw concrete, chemicals or silty water will be prevented from entering groundwater, surface water

drains or watercourses by the appropriate use of and appropriate placement of ground protection measures such as bunded dedicated areas, plant nappies , (temporary) silt fences, cut-off drains, silt traps and drainage to vegetated areas (where appropriate and approved in advance by ECoW).

- Where a minimum buffer distance of 50m from surface water cannot be achieved for high risk activities (e.g. crushing, refuelling, stockpiling, use of cementitious materials), advice will be sought from the ECoW and a minimum distance will be agreed with the Employer.
- The construction compound and laydown area(s) are free draining and contain a bunded area for maintaining vehicles and plant, or other pollution control measures, as appropriate / required to protect surface water.
- Consider local weather conditions and patterns including rainfall and wind direction. Take this into account when planning certain activities (e.g. topsoil stripping) for appropriate control of dust and silt.
- Any sign of failing water treatment measures or sight of silted or contaminated water entering any watercourse on site will be reported immediately (Section 6).

Fuelling and Pumping Safeguards

- External fuel delivery lorries will only be allowed as far as the main site compound where the bulk refuelling area will be equipped with an impermeable base and oil interceptor (in accordance with Guidance for Pollution Prevention).
- Fuel transfer / refuelling and pumping will be undertaken by specifically trained and competent staff or undertaken under competent supervision.
- During fuelling and pumping, pumps will not be left unattended at any time.
- Areas of waste oil / fuel / chemical storage and permanent refuelling will be located 50m away from watercourses or drainage paths. Where this is not possible, advice will be sought from the ECoW and a minimum distance will be agreed with the Employer.
- All refuelling and pumping will be carried out at least 50 metres from surface water. Where this buffer distance cannot be achieved a minimum distance will be agreed with the ECoW.
- Fuel pipes on plant, outlets at fuel tanks etc will be regularly checked and maintained to ensure that no drips or leaks to ground occur. Records of checks will be maintained and made available to the Employer on request.
- Irrespective of the buffer distance and location of refuelling, plant nappies will be available and used during all refuelling operations (open metal drip trays are not acceptable).
- High volume (> 1000L) storage facilities i.e. fuel containers must be bunded and inspected for signs of corrosion or breach before being accepted for use on site, to reduce the risk of a high volume leak.

Storage Safeguards

- Storage will be secured to prevent the public or animals from gaining access.
- Storage areas will be sited on an impermeable base to prevent the downward percolation of contaminants to natural soils and groundwater.
- Siting of storage will be in a manner so as to avoid damage from collisions or other impacts that could compromise containers.

Spill Prevention

- The Contractor's Environmental Representative carries out weekly inspections of oil/fuel storage areas and plant. The frequency and responsibility for undertaking these inspections will be recorded by the Contractor and communicated to the Employer prior to commencement of the works.

- Spill kits will be available within each plant and close to identified pollution sources (e.g. fuel storage areas) or sensitive receptors (e.g. water course crossings).
- Plant nappies will be positioned under any mobile plant at the end of the working day to prevent oil contamination of the ground or surface water. In certain circumstances it may not be practicable or safe to use a plant nappy[1], in this case the Contractor will seek agreement with the ECoW on an appropriate approach (see Section 8).

Silt Pollution Prevention

- Any silty water generated on site will be settled out by at least 2 forms of successive treatment drainage mitigation measures (e.g. silt traps, settlement ponds) before being channelled into suitable pre-agreed vegetated areas (at least 50m from watercourses where possible or agreed minimum distance with the ECoW). Settlement must take cognisance of any protections and restrictions noted in the Environmental Risk Map and included within updated ERMP (Section 5).
- All stockpiled materials will be stored in designated areas and isolated from any surface drains and a minimum of 50 metres away from watercourses. Where this buffer distance cannot be achieved a minimum distance will be agreed with the ECoW. Aggregate or fine materials storage with dust or run off potential will be enclosed and screened/sheeted.

Concrete Washout

- Washing out of concrete chutes on site shall only be permitted when the Contractor has provided a designated, suitably prepared washout area with signage identifying the area as suitable for concrete washout.
- Where required, the Contractor will identify a suitably sealed storage location for the concrete washout (e.g. lined with visqueen). This will be allowed to set before breaking it out and disposing of it as concrete waste.
- The concrete 'washout' (in liquid form) in the designated area shall not be emptied into any watercourse or on to any land areas and shall be appropriately treated or disposed of in accordance with the Site Waste Management Plan.
- Tools, equipment or materials will not be washed in watercourses and the washwater contained for treatment or disposal in accordance with the Site Waste Management Plan. Mortar mixing and material storage areas must be away from watercourses.

Flocculants

- The Contractor ensures the use of flocculants are permissible within any regulatory permits (Section 13) and will only utilise Employer approved (e.g. anionic) flocculants. No use of chemical flocculants will be permitted (e.g. alum based).
- There will be no use of flocculants permitted to treat drainage where they have the potential to alter water chemistry. Any proposals for the use of flocculants must be agreed in advance of use with the ECoW, Employer's Project Manager and SSE Environmental Manager.

10.3. Dust and mud Management

10.3.1 The Contractor implements the following mitigation measures to minimise dust emissions during the Works:

[1] For example, uneven ground where a slope would make the plant nappy ineffective or on soft/ uneven ground where it may be dangerous for an operative to reach under plant.

- Local road network will be protected from mud, debris or other loose or deleterious material deposits through;
  - wheel cleaning facilities at site entry/exit points.
  - lorry sheeting measures will be employed as required.
  - use of road sweeper will be used where required.
- Adequate supplies of water (permitted in advance where abstracted) are made available for use in dust suppression units/bowsers for any area generating dust such as the following but not limited activities;
  - Tracks and hardstanding areas are kept clean and, if unsealed, are kept damp during prolonged spells of dry weather or as required to suppress dust emissions.
  - Stockpiled materials will be prevented from generating wind blown dust.
  - Borrow pit working areas are kept damp by water spraying or misting if required to suppress dust emissions.
- Dust collection systems and / or dampening systems are used on all blast-hole drilling machines (if used).
- Site speed limit will be enforced and reduced to manage dust when required.
- No burning of materials is permitted on site.
- Dust-contaminated run-off water (e.g. arising from dust suppression) must be prevented from discharging to watercourses untreated.

10.3.2 The Contractor shall maintain a Dust Suppression Register for measures employed on hard standings, tracks, excavation and storage areas.

10.3.3 Abstraction of water is an activity regulated by SEPA, see Section 13.

10.4. Noise Mitigation

Normal Working Hours

10.4.1 Normal construction hours will be 07:00 to 19:00 Monday to Friday and 07:00 to 14:00 Saturdays.

Extraordinary Working Hours

10.4.2 Any extraordinary site work would be programmed and agreed in advance with the Local Authority.

Noise and Vibration Control Measures

10.4.3 Due to ecological sensitivity, any works which may involve large scale noise or vibration (such as pile driving or blasting) will be undertaken only with prior consultation with the ECoW and in accordance with ecological protection plans (Section 15).

10.4.4 Good site practices will be implemented by the Contractor onsite to ensure no significant adverse effects. Section 8 of BS5228-1:2009+A1:2014 (BSI, 2008) recommends a number of simple control measures as summarised below that would be employed onsite:

- Keep local residents informed of the proposed working schedule, where appropriate, including the times and duration of any abnormally noisy activity that may cause concern.
- Ensure that any extraordinary site work would be programmed and agreed in advance with the Local Authority as detailed in the CEMP.
- Ensure all vehicles and mechanical plant are fitted with effective exhaust silencers and be subject to programmed maintenance.

- Select inherently quiet plant where appropriate.
- All major compressors would be 'sound reduced' models fitted with properly lined and sealed acoustic covers, which would be kept closed whenever the machines are in use.
- Ensure all ancillary pneumatic percussive tools would be fitted with mufflers or silencers of the type recommended by the manufacturers.
- Instruct that machines would be shut down between work periods or throttled down to a minimum.
- Regularly maintain all equipment used on site, including maintenance related to noise emissions.
- Vehicles would be loaded carefully to ensure minimal drop heights to minimise noise during this operation.
- Ensure all ancillary plant such as generators and pumps would be positioned to cause minimum noise disturbance and, if necessary, temporary acoustic screens or enclosures should be provided.

10.4.5 Blasting will be undertaken in strictly controlled conditions with the agreement of the relevant authorities.

10.5. Light Management

10.5.1 Temporary lighting must be directed away from watercourses and an unlit corridor of 30m either side of watercourses is maintained.

10.5.2 Compound lighting shall face inwards, and downwards where practicable to reduce light pollution and impact to wildlife.

10.6. Winter Maintenance

10.6.1 Where clearance of snow is required, this must be undertaken mechanically and with care not to dislodge underlying road surface material.

10.6.2 Use of de-icers (e.g. grit/ road salt) is not recommended and will only be permitted under specific conditions where use is considered essential, in agreement with the Employer and ECoW. The application of de-icers must be localised and targeted to minimise adverse environmental effects to surrounding vegetation and prevent run-off to surface water.

10.6.3 De-icers are pollutants and must be stored in accordance with good practice for chemical storage. Protected from the weather and at least 50m from surface water.

10.6.4 The Contractor will prepare a winterisation plan in accordance with the Works Instruction.

11. Drainage

11.1. Scope and Minimum Requirements

11.1.1 All temporary drainage measures are to be agreed in advance by the ECoW (Section 11) to ensure appropriate pre-works surveys and other considerations have been addressed prior to implementation.

11.1.2 The Contractor undertakes maintenance of all temporary and permanent drainage solutions as and when required but at a frequency of at least weekly. The Contractor maintains a Drainage Maintenance Register and issues this to the Employer's Project Manager on a weekly basis for discussion at weekly meetings.

11.1.3 Temporary cut-off drainage systems will be infilled as work progress and are completed to minimise the risk of dewatering areas.

11.1.4 The Contractor designs and constructs a drainage system including all silt mitigation measures necessary to prevent the pollution of existing drainage systems and watercourses for construction and post construction activities.

11.1.5 Except where necessary to facilitate the crossing of a watercourse, works will typically be undertaken out with 50m of any watercourse. Any exception to work with reduced distances must first be agreed with the ECoW and assessed through the ERMP process (Section 7).

Discharge of Water

11.1.6 All drainage associated with the works is not permitted to discharge directly into any existing drainage or watercourse without treatment. In accordance with CAR (Section 13.1), all reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment.

11.1.7 The Contractor does not discharge water unless they have acceptance from the ECoW (through a permit to pump system of notification, in advance of works), and complies with CAR Regulations. This includes the pumping of standing water from an excavation.

11.1.8 The Contractor does not discharge any drainage within 50m of a watercourse unless accepted otherwise by the Employer's Project Manager and the ECoW.

Permit to Pump

11.1.9 A 'permit to pump' procedure will be in place prior to water being pumped from any excavation across vegetation. The Contractor seeks the ECoW's agreement prior to granting a 'permit to pump'.

Clean Water Diversion

11.1.10 The Contractor will ensure measures are in place ahead of phased work progression to provide clear separation of construction silty water run-off and clean (green field) run-off.

11.1.11 Interceptor ditches (cut off trenches) and other drainage diversion measures will be installed – in advance of any excavation works – to collect and divert green field run-off away from construction disturbed areas.

11.2. Access Track Drainage

11.2.1 The Contractor provides silt traps / catch pits at the inlet of all cross drains to prevent the pipes becoming blocked and prevent erosion at the inlet points. Silt traps / catch pits are designed to allow access by gully suckers to remove silt during the construction phase of the project and are

designed to present no risk to wildlife, whilst permitting unrestricted water flow into the catch pit. An illustration of drainage arrangements is provided in Appendix 3 (Schematic 3 Cut and Fill Track).

11.2.2 The Contractor erects and maintains silt fences to protect all watercourses, which may be affected.

11.2.3 All drainage channels are sufficiently wide as is practicable to allow wildlife to safely enter/exit the channel.

11.2.4 The Contractor provides scour / erosion protection to prevent siltation run off where required and check dams to slow the flow of water on steep sloping topography.

11.2.5 The Contractor provides permanent check dams / water bars (flow barriers or dams constructed across the drainage channel) at regular intervals within drainage ditches. Check dams are required in order to reduce the velocity of water and therefore allow settlement of coarser sediment particles, as well as silt at low flow conditions. Reduction in velocity will also prevent scouring of the drainage channel itself.

11.2.6 Check dams are constructed of clean aggregate. The number and location of check dams is dependent on the slope gradient, flow velocity and volume of water, the minimum frequency of check dams will generally be such that the top of the downstream check dam is level with the toe of the next check dam upstream.

11.3. Peat and Soil Storage Drainage

11.3.1 The Contractor considers the location of any temporary peat or soil storage areas to avoid storage of peat on undisturbed habitat, that erosion and run-off is limited, run-off from the stored material is controlled and stability of the existing ground, particularly in peatland areas, is not affected. The Contractor also gives consideration to the impacts of poor drainage control in any areas where peat is used in reinstatement (Sections 17 and 18).

11.3.2 Interceptor ditches, down slope drainage collection systems, containment berms (embedded where appropriate), and appropriate drainage mitigation measures will be required as with other infrastructure described above.

11.3.3 The Contractor carefully selects the locations and designs the peat and other spoil storage requirements including methods for reinstatement works and incorporated drainage elements. Such design will be prepared and agreement sought from the ECoW and Employer prior to works commencing. Further peat storage requirements are provided in Section 17.

12. Water Quality and Fish Monitoring

12.1. Employer's Water Quality Monitoring plan

12.1.1 The Employer's will prepare a Water Quality and Fish Monitoring Plan (WQFMP) in accordance with the EIAR and planning consent.

12.1.2 The Employer will undertake monthly surface water quality monitoring, including obtaining a baseline surface water quality data prior to commencement of the works to establish maximum threshold exceedances.

12.1.3 Monitoring of water quality and fish population monitoring (where required) will continue over the duration of the works to identify any significant changes of water quality which may be attributed to the construction works.

12.1.4 A monthly monitoring report on the findings of the water quality monitoring exercises will be prepared and provided to the Employer and issued to the Contractor within 2 weeks of receipt of analytical results. Any important findings or environmental issue of concern observed will be reported immediately to the Employer.

12.1.5 Where a decrease in water quality resulting from construction works is observed, the Contractor will undertake remedial measures and will bear the costs of all associated sampling and investigation. The Contractor may wish to undertake confirmatory sampling and analysis at any point during the works at their own cost.

12.1.6 During the main construction phase weekly visual checks of the water management features and downstream hydrological features will be undertaken by the ECoW (Section 3.4).

12.2. Contractor's Visual and Field Water Quality Monitoring

12.2.1 The Contractor ensures that all personnel and visitors on site are encouraged (at site inductions) to report visual indications of changes in water quality (e.g. discolouration or other evidence of contamination) in any watercourses on site.

12.2.2 The Contractor's Environmental Representative undertakes weekly visual inspections of the watercourses on site. The Contractor's monitoring records will include the following minimum information:

- Antecedent and current weather conditions.
- Current construction activities within the vicinity and in particular up stream or up gradient of the observation point.
- Visual assessment of water colour, turbidity.
- Potential chemical contamination evidenced by odour, visual changes and water sampling.
- Visual evidence of silt or sediment pollution within the water column or on the bed of the watercourse/standing water body.
- Details on any communication, corrective action and / or mitigation undertaken as a result of any water quality issues observed during the monitoring visit.
- Visual monitoring records will be kept by the Contractor and made available for review by the ECoW and Employer.

12.2.3 Where evidence of pollution is observed to the water environment, emergency response procedures will be implemented, and the incident will be reported to the Employer within 30 minutes (Section 6). Remedial measures will be implemented immediately, and details of action taken will be recorded.

12.3. Private Water Supplies (PWS)

12.3.1 Measures to prevent pollution of water, as prescribed in Sections 10, minimises the risk to PWS sources. Onsite visual monitoring of water quality by the Contractor Environmental Representative, ECoW and the Employer's monthly monitoring programme (Section 12.1) will note any deterioration to water quality during construction to enable appropriate action to be taken.

12.3.2 Contact details (land and mobile numbers / email addresses) for PWS users would be maintained by site management at all times.

12.3.3 In the event that monitoring data collected at any PWS is above the baseline monitoring record and above prescribed regulatory standards then property owners would be advised and repeat water sampling undertaken (if agreed with the property owners). Property owners would be advised within 24 hours of receipt of monitoring results. Repeat water sampling would be undertaken as soon as reasonably practicable and within 72 hours.

12.3.4 Details of any affected property would be reported to Stirling Council (SC) or Perth and Kinross Council (PKR) within an agreed timeframe.

12.3.5 In the event of a pollution incident, the Contractor notifies all PWS user(s) potentially affected downstream.

12.3.6 If the quality of a PWS is suspected or shown to be negatively affected by the works, the Contractor ceases to work upstream of the supply until an alternative drinking water supply has been provided to the user(s) of the PWS and the cause of the PWS pollution has been identified and remediated.

12.3.7 Where supplies are affected or disrupted as a result of pollution arising from the construction works on the project site, the Contractor arranges for an alternative water source to be provided or installed until such time as the existing supply is reinstated to an appropriate quality.

12.3.8 Where it is demonstrated that disruption of a supply has been caused by works, the Contractor bears all costs associated with additional sampling, monitoring and installation of temporary supplies or provision of alternative supplies.

Private Water Supplies Protection and Contingency of Supply

12.3.9 Implementation of the good practice measures to protect the water environment, set out within this CEMP, will also protect sources supplying PWS.

12.3.10 Should water quality threshold levels be exceeded, detrimental changes observed through weekly checks (Section 12.2), or a pollution incident be reported by the Employer / Consultant, Contractor or residents (of the properties supplied by the PWS), then works will stop within the area of potential pathway (i.e. upstream of or within 250m of PWS source) until the supply has been safeguarded.

12.3.11 If this is not possible, for example access to a PWS is interrupted or contamination is anticipated for longer than four hours, then an alternative potable supply of water must be provided by the Contractor.

13. Authorisations

13.1. Works within the water environment

13.1.1 The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), or "CAR", regulate activities which may impact the water environment. These activities are regulated by SEPA and may be undertaken in accordance with the General Binding Rules (GBR) set out in CAR or require prior authorisation. Whether or not prior authorisation is required will depend on the nature of the activity and where it falls within the thresholds set out within CAR.

13.1.2 This project is anticipated to require authorisations for Construction Run-off (i.e. for the construction site), water abstraction (e.g. for dust suppression) and engineering activities for works in water (e.g. water crossings). Requirements for these common authorisations are summarised below.

13.2. Construction Run-off Permit

13.2.1 All site discharges are regulated under CAR. A Construction run-off permit will be sought by the Contractor from SEPA prior to the commencement of any operations on-site, where the GBR thresholds are exceeded. The Contractor will act as Responsible Person.

13.2.2 A Pollution Prevention Plan will be prepared by the Contractor in accordance with guidance provided by SEPA for Construction Sites and will include (not be limited to) the relevant measures set out within this CEMP. There is no requirement to issue a Pollution Prevention Plan for approval to SEPA, however the Contractor will prepare a plan prior to commencing works on the basis of the constraints and mitigation plans.

13.2.3 SEPA advise that "For construction sites, it is best practice to have and implement site-specific plans and procedures to deliver effective construction run-off management and prevent pollution of the water environment." To comply with this, in addition to their Pollution Prevention Plan, the Contractor will identify areas of high significant risk and prepare task specific Environmental Risk Mitigation Plans as discussed in Section 7.

13.3. Abstraction

13.3.1 Where abstraction is required, the contactor will obtain all necessary permissions required (e.g. for dust suppression).

13.3.2 In all cases the ECoW is consulted in advance of (and must accept prior to) abstraction of water on site (e.g. from watercourses or lochans). The ECoW carries out surveys immediately prior to activity to check for breeding birds or mammal activity in proximity to abstraction.

13.4. Watercourse Crossings

Permanent Crossings

13.4.1 CAR authorisations for water crossing designs will be obtained by the Contractor in advance of commencement of works (paragraph 2.2.1).

13.4.2 Should the Contractor wish to vary the design or approach, set out in CAR authorisations, then they must detail any variation to agreed approach prior to commencement of the works, i.e. detailed plans for works in the vicinity of surface water. The Contractor submits these plans to the Employer and SEPA for acceptance. Approval from the Planning Authority may also be

necessary, as set out in Section 9. There may be a significant delay if a licence (or change to authorisation) is required.

13.4.3 The ECoW is consulted in advance of (and must accept prior to) all temporary watercourse crossing works. The ECoW oversees surveys immediately prior to construction or upgrading to identify areas of fish and mammal activity in and around watercourses. Prior to in-channel works, where deemed necessary by the ECoW, an exclusion zone may be put in place and fish rescue undertaken.

13.4.4 Operating and crossing vehicles or plant within water courses (including to ford) is not permitted unless pre-agreed with the ECoW. It will be the responsibility of the Contractor to agree an approach with the ECoW and to provide any necessary information e.g. methodology, plan specifications and habitat protection measures.

13.4.5 If there is disturbance to the riverbed then work should not be carried out during fish spawning times and fish emergence times. Key fish species to consider include salmon and trout (normally October – May) and Lamprey species (normally March – July). However, these times can vary and contact must be made with the local district salmon fishery board.

Temporary Water Crossings

13.4.6 Where feasible, span structures are preferred to prevent encroaching on the bed or banks of the watercourse.

13.4.7 All temporary crossing will comply with the General Binding Rules (primarily GBR 6) of the CAR and/or be included within the authorisation for the permanent crossing.

13.4.8 In accordance with good practice temporary construction methods (i.e. SEPA Engineering Guidance[2]), the most appropriate method of isolation will be identified to provide the highest level of pollution prevention.

13.4.9 The ECoW is consulted in advance of all temporary watercourse crossing works and must agree methodology in advance.

Fording or Operating Vehicle, Plant or Machinery In or Near Water

13.4.10 Fording is not permitted. In specific circumstances, where there is no alternative available, it may be pre-agreed with the ECoW to operate within water (e.g. for the purpose of placing a temporary crossing). This work must be undertaken in accordance with General Binding Rule 9, good practice (Section 10) and in consideration of the sensitivity of the watercourse (Section 7).

[2] https://www.sepa.org.uk/regulations/water/engineering/engineering-guidance/

14. Waste Management

14.1. General waste management requirements

14.1.1 The minimum percentage rate for diversion of site wastes from landfill by the Employer is 95% and 55% of waste to be recycled. These are annual targets and may vary year on year and will be agreed at the start of the contract between the Contractor and the Employer.

14.1.2 The Contractor utilises only certified waste carriers / waste contractors and maintains all transfer paperwork, licence details of contractors and end treatment facilities as part of the Site Waste Management plan (SWMP) documentation onsite.

14.1.3 Welfare facilities will either connect directly to the foul sewer, self-contained storage tanks or to a septic tank, subject to approval from SEPA. If self-contained or septic tanks are to be used, these will be maintained and emptied on a regular basis by a suitably licensed contractor.

14.2. SWMP Development and Records Required

14.2.1 In accordance with best practice, the Contractor shall create and maintain a Site Waste Management Plan (SWMP). This is to manage waste effectively, reduce the amount of waste produced and collate measured waste data required by the Employer.

14.2.2 The SWMP will forecast and record all waste types and volumes arising from the Development.

14.2.3 The Contractor's SWMP shall provide details on how waste reduction shall be implemented at the site and how this will be monitored throughout the construction phase. The Contractor's Environmental Representative is responsible for implementation and monitoring of the SWMP.

14.2.4 The Contractor shall include the following within the SWMP as a minimum:

- Identification of the Employer, the Contractor; the person(s) who drafted the SWMP and the person(s) who will be responsible for its implementation, monitoring and review during and upon completion of construction works.
- The minimum percentage rate for diversion of waste from landfill expected by the Employer or set by the Contractor (if proportion diverted is greater), measured in tonnes. (see paragraph 14.1.1) and same for recycling.
- Waste streams expected to arise over the duration of construction and the anticipated destination of these wastes:
  - a description of each waste type expected to be produced in the course of the project, with the relevant European Waste Catalogue code assigned to it.
  - an estimate of the quantity (in tonnes) of each different waste streams / type of waste expected to be produced during each construction activity.
  - Identification of the waste management actions proposed for each different waste type, including reuse/recovery, recycling and disposal.
- a written statement demonstrating what actions are to be taken to minimise the volume of each type of waste produced prior to commencement of the activity generating the waste, e.g.:
  - provision of bins to segregate waste and recyclable materials within all welfare facilities in-line with the preliminary, non-exhaustive waste streams identified;
  - provision of separate, suitably robust skips for general waste and separate recyclable materials within the main site compound in-line with the preliminary, non-exhaustive waste streams identified.

  - management of expected and unexpected hazardous/special waste. i.e. provision of secure bunded containers to store waste oils / fuels / lubricants and oily rags prior to removal from site.
  - re-use of materials such as concrete formwork and reinforcement “seating” steel.
  - material arising from excavation works may be reused as fill material where suitable (and not posing environmental risks).

- A site plan showing all waste disposal/recycling locations and material storage areas.
- Identification of the proposed Waste Contractor(s) and the requirements imposed on them, i.e. completion of Waste Transfer Notes (WTN).
- WTN for all materials removed from site comprising the following information:
  - European Waste Catalogue (EWC) codes.
  - description of waste removed from site.
  - date and time waste removed from site.
  - weight (in tonnes) of waste removed from site.
  - name of Waste Contractor Operative.
  - location of waste disposal site which is to be used.
  - weigh of waste / recyclable material, i.e. waste facility will include weight bridge.
- All estimated and actual waste itemised (by waste stream as a minimum) in tonnes and the recovery rate.

14.3. SWMP implementation and Monitoring

14.3.1 The Contractor’s Environmental Representative checks the contents of the site waste and recycling skips on a weekly basis to ensure waste is being correctly segregated. Non-compliance will be highlighted at the weekly progress meeting and appropriate actions taken e.g. a toolbox talk to all working parties.

14.3.2 The Contractor shall demonstrate compliance with the responsibilities outlined in Duty of Care for Waste and refers to the good practice principals detailed in A Simple Guide to Site Waste Management Plan.

14.3.3 For monitoring and auditing purposes, the Contractor’s Environmental Representative implements and maintains a Waste and Recycling Record under the SWMP. As a minimum, this includes a record of all waste leaving the site, including copies of all WTN/ CN in-line with the relevant requirements. Information on the end treatment of each waste shall be collected and retained (e.g. from the Contractor’s waste broker).

14.3.4 Waste management is monitored by the Contractor’s Environmental Representative and reviewed monthly against the estimate set within the Contractor’s detailed SWMP. Where necessary, changes are implemented to revise site activities if performance is below the set recycling target.

14.3.5 Waste management will be a recurring agenda item for all regular meetings as required by this document. The Contractor’s Environmental Representative provides an update and any actions that are required to be implemented.

14.4. Waste Reporting to Employer

14.4.1 A Monthly Waste Summary must be provided to the Employer by the fifth working day of each month. This must contain actual measured waste data for the previous calendar month, including:

- types of waste generated (summarised by EWC Code and waste description).
- measured volume of each waste type generated (in tonnes).
- end treatment of each waste type (i.e. volume or percentage of each waste that is recycled, recovered/reprocessed, waste to energy or landfill).

14.4.2 Upon completion of works, the SWMP will be provided to the Employer. This will contain pre-construction estimated and actual waste itemised (by waste stream as a minimum) in tonnes and the recovery rate of each waste.

15. Ecological Protection Plans

15.1. General Contractor Requirements

15.1.1 The following gives guidance on general ecological protection. The project-specific species protection plan will be prepared in accordance with the EIAR and planning consent.

15.1.2 The Contractor is required to comply with all regulations, guidance and control measures. This includes measures set out with this CEMP, including the ecological protection plans (Section 3). Ecological Protection Plans and the Environmental Constraints Map (Section 7.2) will be updated (as required) over the course of development to continually inform the Contractor of changing environments, habitats and risks. The Contractor will take cognisance of the constraints and address mitigation through work site ERMPs (Section 7.4).

15.1.3 Any changes to protection measures or mitigation approach must be agreed in accordance with Section 8 CEMP Departures and/or Section 7 Environmental Risk Management. This will be in partnership with the ECoW and may also include the NatureScot, SEPA and Planning Authority as applicable.

15.1.4 The Contractor accesses and egresses the site via the plant access routes identified, any deviation must be agreed with the ECoW and Employer.

15.1.5 The Contractor reports any sightings of wildlife including (but not limited to) otters, water vole, hare, or breeding birds to the ECoW on the day of the sighting.

15.1.6 Any abstraction of water may impact breeding birds, fish or other species and therefore consultation with the ECoW must be undertaken in advance, see Section 13 of this CEMP for further information, prior to seeking formal permissions.

15.1.7 The following sections include additional measures specific to habitats, birds or other species.

15.2. Habitat Protection Plans

15.2.1 Habitat protection may be defined as the set of measures used to minimise the risk of damage or destruction to the terrestrial and aquatic habitats of the site, including groundwater dependent terrestrial ecosystems (GWDTE), and downstream ecosystems. Further information on the protection of wetland ecosystems is provided below.

15.2.2 The Contractor will discuss and agree the requirement for demarcation with the ECoW and the Employer prior to commencement of any works. Buffer zones will be demarcated by the Contractor, where necessary, and confirmed with the ECoW.

15.2.3 The Contractor maintains a 50m buffer between working areas and watercourses where possible except at watercourse/open drain crossing points. Any buffer zones less than 50m must be authorised by the ECoW in advance of works, the minimum buffer zone is 10m.

15.2.4 The Contractor will restrict all works and movements as far as possible to the footprint of the planned infrastructure and turbine bases identified or as agreed with the ECoW, thus avoiding watercourse buffer zones and areas of sensitive peatland or other habitats.

15.2.5 Where possible, the Contractor avoids works and vehicle movements in areas of wet bog and excessive peat depth. In addition, current good working practices will be applied in order to ensure stabilisation of peat.

15.2.6 The Contractor will use bog mats and low ground pressure plant as appropriate, especially for vehicle/plant movement in areas of deep peat where plant movement cannot be avoided.

Sensitive Habitats

15.2.7 Protection of sensitive habitats (through avoidance and minimisation of damage and loss) like active blanket bogs and GWDTE is required as these habitats are recognised as important under the EC Directives.

15.2.8 Pre-works surveys will include identification of sensitive habitats. Measures to protect the habitats, and the hydrology that sustains them, may include micro siting (Section 9) or erecting exclusion zones. This is in addition to pollution prevention and mitigation measures to protect water quality set out in Section 10.

15.2.9 All site working practices need to consider their possible effects on sensitive habitats and soils and mitigate significant negative effects as far as is reasonably possible.

15.2.10 The Contractor makes best use of excavated turf and peat as part of reinstatement procedures (see Sections 17 and 18).

15.2.11 Micro-siting of infrastructure and/or the configuration of the construction working areas within the Development (see Section 9) will seek to avoid localised ecological sensitivities wherever possible.

15.3. Species Protection Plan

15.3.1 Detailed Species Protection Plans (SPPs) will be prepared in accordance with the EIAR, NatureScot guidance and planning consent. These will include details of protection measures that will be implemented for specific sensitive species active within or close to the development site and be included as an appendix to the final CEMP (Section 1.1).

15.3.2 Species protection may be defined as the set of measures used to minimise the risk of disturbance, injury or death to species of nature conservation interest. Particular attention is paid to species protected under EC and/or UK legislation. This includes mammal, fish and eel species.

15.3.3 The following working methods and constraints shall be imposed in order to avoid harm or disturbance to species. The Contractor ensures that:

- All working parties will be briefed through a Toolbox talk (Section 5.2) on the potential presence of any protected species, the potential for offences to occur, and the working methods to follow to ensure that the risk of disturbance due to the works is minimised.
- Excavation and reinstatement works will take place using the minimum number of vehicles and personnel possible.
- Wherever possible, excavation works will be completed rapidly such that trenches are left open for the least amount of time and refilled within the same day, if at all possible. This is to minimise the risk of animals falling into any open trenches. Any trenches left open overnight shall have a means of escape for any animals that may fall in. This will be generally achieved by including a bank of 45° slope or if this is not achievable, a ramp for animals to climb out.
- Any temporarily exposed open pipe system shall be capped in such a way as to prevent animals gaining access, which is a particular risk when contractors are off site.
- Access to important feeding and watering sites shall be maintained, e.g. construction materials or fencing shall not obstruct existing mammal trails as far as reasonably practicable.
- Equipment and materials, including chemical storage, will be stored securely to prevent animals from gaining access.

- Where security (or other) lighting is employed, this will be directed away from any areas of scrub, hedgerow, woodland or watercourses.
- In keeping with good practice, speed limits along the access road will be restricted to 15 mph to reduce the risk of accidental collisions of works traffic with animals.
- No fires will be permitted as part of the works.
- Reduction of litter and anthropogenic foods which may attract brown rats (which compete with water voles for food and habitat) will be carried out at the start and end of works, along with removal of all construction related materials periodically through the contract period.
- Where possible, watercourse crossings would be suitably designed to allow continued mammal and fish movement along watercourses and would minimise riparian habitat loss. This would also reduce the risk of mammals crossing tracks and being involved in vehicle collisions.
- Design of any permanent or temporary lighting is such that it is directed away from watercourses and that an unlit corridor of 30m either side of watercourses is maintained.
- To help maintain the value of watercourses present on site, all construction related materials will be removed periodically through the contract period (where appropriate) and on completion of works.
- Be aware that otter or other species may shelter in stacked pipes or beneath pallets. These features shall be inspected daily before the start of works and any temporarily exposed pipe system shall be capped when staff are off site.

Species Licences

15.3.4 If required, the ECoW will make relevant licence applications (e.g. licence to disturb) to the NatureScot Licencing Team and undertake related mitigation measures in accordance with any licence obtained. Where a licence is required, the ECoW requires sufficient notice to apply, due to the regulator period to determine, and will therefore make the application approximately 40 days prior to any works commencing to ensure the licence is in place. Where a licence needs to be expedited, the ECoW will contact the relevant NatureScot licencing directly.

15.3.5 The ECoW will monitor the implementation of any species and habitat protection plans and check compliance with control measures and terms of any Licence to Disturb which might be required.

15.4. Breeding Bird Protection Plan

15.4.1 Detailed Breeding Bird Protection Plans (BPPs) will be prepared in accordance with the EIAR, NatureScot guidance and planning consent. These will include details of protection measures that will be implemented for specific sensitive bird species active within or close to the development site and will be included as an appendix to the final CEMP (Section 1.1). All breeding bird species are protected by law. In the UK, under the Wildlife and Countryside Act 1981 (Appendix I) it is an offence to kill them or damage their nests and eggs. Species listed in Schedule 1 of the Act are specially protected, so that it is an offence merely to disturb them while nesting. However, if disturbance to the nest of any other bird species without special protection were sufficient to prevent parent birds from incubating their eggs or feeding their nestlings, so that the brood died, this could be regarded as an offence under the 1981 Act.

15.4.2 In accordance with the Breeding Bird Protection Plan, during bird breeding season (March to August inclusive), the ECoW will survey to locate the nests of wild birds prior to the commencement of any work. These will be carried out in advance of all construction activities and will involve a walkover of the work area for nests. Where sensitive species may be present, checks will also be made for these species out to the relevant disturbance distance, access permitting.

16. Archaeological Protection

16.1. Overview

16.1.1 Any construction works involving ground disturbance will pay due attention to the potential presence of unknown features or structures. In the event of an unexpected discovery e.g. bones or relics, work will halt in proximity to the finding. The Contractor will inform the Employer and Archaeological support will be provided as required by an Archaeological Consultant appointed by the Employer.

16.1.2 Where required, and if applicable, an Archaeological Consultant appointed by the Employer will prepare a methodology for the identification, preservation and recording of archaeological remains at the site ('Written Scheme of Investigation' (WSI)). The contents of the WSI will generally be agreed with the Planning Authority's archaeologist and measures prescribed undertaken prior to recommencement of works in proximity to the finding as appropriate.

16.2. Archaeological Protection Measures

16.2.1 An experienced field archaeologist will act as ACoW for the duration of the project and provide guidance and advice as required. This will include the provision of archaeologically themed toolbox talks, micro-siting agreement, watching brief(s) and survey locations of known monuments to mark off for protection during construction.

16.2.2 Under the direction of the ACoW, archaeologically sensitive areas will be fenced off by the Contractor using suitably robust fencing materials and will include signage indicating that the area is archaeologically sensitive. Access can only be taken into these buffer zone areas with ACoW permission and/or supervision.

17. Excavated Materials

17.1. Management of Excavated Materials

17.1.1 In advance of each main phase of works, the Contractor (in consultation with ECoW and other specialists where required), provides a method statement detailing expected volumes, material classification (see Section 17.2), storage and reuse procedures for the excavated materials anticipated from that particular work area. This includes information on soil and peat types, volumes, temporary storage areas and a management / reinstatement scheme for peat reuse areas, including:

- areas subject to a watching brief by the ACoW (see Section 16);
- plans showing the details of peat/soil stripping and excavation at the site and the storage and proposed use and replacement of peat (including borrow pit areas), topsoil and subsoil; and
- a method statement setting out the measures to protect soils during excavation, storage and handling.

17.1.2 The Contractor liaises with SEPA on all aspects of waste management, if required, to ensure compliance with all appropriate regulatory controls prior to and during construction works.

17.2. Classification of Excavated Materials

17.2.1 Classification of excavated materials depends on their status and identified re-use in reinstatement works. In order to ensure compliance with relevant waste legislation, excavated materials will require to be classified onsite. Four initial classes of excavated materials may be identified during construction:

- **Turf**: Surface layer of living vegetation and underlying fibrous subsoil.
- **Mineral Soil**: Highly variable composition, which will depend on underlying geology, depositional environment or provenance if made ground. Refer to British Soil Classification System BS5930: 1999, “Code of Practice for Site Investigations” (Table 13).
- **Upper layer of peat**: The upper layer of a peat bog in which organic matter decomposes aerobically may be fibrous or pseudo-fibrous (plant remains recognisable), spongy, of low strength although consolidated, retains integral structure and can stand unsupported when stockpiled >1m. Such material is generally found within the top 1m of peat, although may extend beyond this to depths of up to 2m depending on the degree of decomposition and degree of humification of the peat.
- **Deeper layers of peat**: In the deeper layers of peat in which organic matter decomposes anaerobically. Material is unconsolidated, amorphous (recognisable plant remains absent), plastic, has high water content and low tensile strength and is unable to stand unsupported.

17.2.2 When defining excavated materials suitability for reuse, the Contractor considers the material classes defined in Chapter 2 of the Management of Extractive Waste (Scotland) Regulations 2010. Any material that is not immediately suitable for a predetermined use without the requirement for treatment (e.g. dewatering) is classed as waste and requires to be dealt with in accordance with the Contractor’s Site Waste Management Plan.

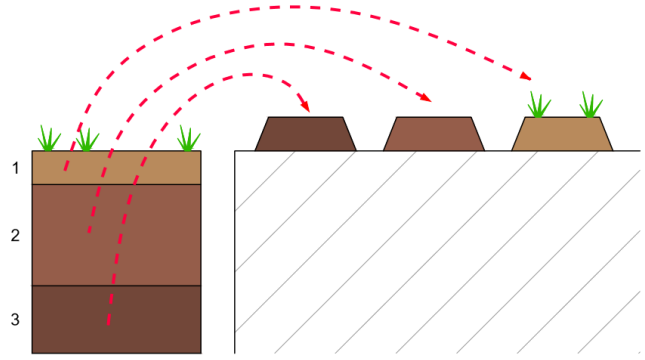
17.3. Soil Storage and management

17.3.1 The Contractor ensures works will be programmed in such a way as to minimise the amount of time excavated areas / exposed soil is left open to the elements.

17.3.2 Distinct horizons of soil (subsoil and topsoil) or peat (catotelmic, acrotelmic and turves) will be stored in separate stockpiles, see Figure 3. The maximum permissible height for stockpiles for peat will be 1m and 2m for other soils. Stockpiles will be formed avoiding excess consolidation during placing and with naturally stable side slopes. Turves must be stored turf side up and must not be allowed to dry out.

17.3.3 Stripped materials will be carefully separated to keep peat and other soils apart, and stored in appropriately designed and clearly defined, separate stockpiles.

Figure 3 Turve Excavation and Storage



Spoil Storage

17.3.4 Where material is not required for immediate reinstatement, temporary storage may be required. To minimise handling and haulage distances, where possible excavated material will be stored local to the site of excavation and / or local to the end–use site where it is required for re-profiling, reinstatement or ecological restoration purposes (e.g. areas allocated for restoration in the Development's Habitat Management Plan). The Contractor agrees storage location(s) with the ECoW prior to commencement of main phase of works. The storage location will be subject to scrutiny against known constraints, e.g. sensitive habitats, archaeological features and areas of peat slide risk.

17.3.5 Temporary storage locations will be appropriately located and designed to minimise impact to sensitive habitats and species, prevent risks from material instability (particularly in peatland areas) and runoff into watercourses.

17.3.6 Stockpiles will be isolated from any surface drains and a minimum of 50m away from watercourses, unless otherwise agreed with the ECoW. Stockpiles will include appropriate bunding to minimise any pollution risks where required.

17.3.7 Where the excavated material is identified to be required elsewhere in restoration works, although re-use is not imminent, the Contractor may assess specified areas within the working borrow pit suitable temporary storage locations. The Contractor ensures that the handling of the stored material is kept to a minimum and appropriate drainage, pollution prevention and material stability measures are designed prior to the temporary deposition of the material, ensuring material is maintained in a suitable condition for future use.

Peat Storage

17.3.8 Requirements for appropriate peat storage include:

- to minimise temporary storage where possible through immediate reuse of excavated peat (where possible),
- where temporary storage is required, storage locations shall be as local as possible to the site of excavation or reuse,
- Peat will not be temporarily stockpiled for more than 6 months without adequate coverage.
- Turves will be stored separately with vegetation facing up and watered as appropriate, and
- Peat will not be temporarily stockpiled in depths greater than 1 metre.

17.3.9 The Contractor employs a construction management team and plant operators of proven experience of working in comparable environments, including a working knowledge of peat management and drainage, excavation, track construction and reinstatement and restoration.

17.3.10 Turves should be cut with a larger excavator bucket (e.g. 1200mm or 4 foot), where practical, to increase depth/ width of turve and improve the likelihood of reinstatement success. Larger turve depths will reduce likelihood of collapse and support peat dressing (i.e. 50cm minimum depth).

17.3.11 The turves must not be allowed to dry out. The Contractor Environmental Representative and the ECoW monitor (weekly) the condition of stored turves and peat. Where desiccation is evident, as determined by the ECoW, the Contractor provides a means of irrigation to ensure the continued viability of the turves and peat.

17.3.12 Potential erosion and drying of peat will be mitigated through a robust drainage design, use of silt traps where required and localised protection such as cut-off trenches, settlement ponds or barriers at watercourses and crossings.

17.3.13 The Contractor undertakes turf and soil stripping and excavation works in accordance with good practice, including Developments on Peatland: Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste (2012).

17.3.14 During construction, excavated material will not be placed / stockpiled on peat areas such that extra loading would increase the likelihood of failure and the excavations within peat would be minimised wherever possible.

17.4. Cable trench Works

17.4.1 Infrastructure cabling (including earthing and communication cables) is likely to be connected by electrical circuit ‘arrays’, with the output connecting to the new on-site substation. The cabling for this would be laid in trenches of varying width (depending on the number of cables) alongside the site access tracks where suitable, or otherwise.

17.4.2 Prior to cabling works commencing in any area (in accordance with Section 7 Environmental Risk Management), the cabling Contractor walks each cable route section and consults with the ECoW to verify any updates to Environmental Constraints maps to identify all sensitive areas (e.g. soft ground, watercourses, watercourse crossing points, steep slopes) and all other potential constraints and sensitive receptors which may be impacted by the works.

17.4.3 Cable trenches will be planned and executed such that they do not remain open for any longer than one week from initial excavation to backfilling to minimise the potential for the trench to act as drain and so cause silty water wash out.

17.4.4 The cabling Contractor stores excavated materials in close proximity to the excavated trench, however, consideration will be given to minimising impact on sensitive habitats and species, prevent risks from material instability (particularly in peatland areas) and run off into watercourses.

17.4.5 The cabling Contractor handles peat in accordance with measures set out above.

17.4.6 To maintain local hydrological conditions and hydraulic connection in sensitive habitats (e.g. near GWDTEs) mitigation may be required within the trench. This may include clay plugs/ peat bunds to prevent the trenches from becoming a preferential flow path for water flows. The number of in trench cut-offs or bunds to be installed will be proportionate to the gradient of the trench section and take into account the elevation differential to avoid excessive head on the clay plugs/peat bunds. Where wetlands with more discrete groundwater flows are intercepted (e.g. spring and flush habitats) a clay plug may be placed immediately either side of the spring or flush feature to maintain the original hydrological conditions/flows within the wetland on either side of the cable trench. The Environmental Risk Management process set out in Section 7 shall be applied where sensitive area impact is a possibility.

17.4.7 Where cable trenches cross watercourses, consideration will be given to directional drilling where possible as this offers reduced risk to the water environment and minimal reinstatement. Assessment of the risks associated with cables crossing watercourses will be undertaken in accordance with Section 7 Environmental Risk Management.

18. Reinstatement

18.1.1 The Contractor undertakes all reinstatement works associated with the Development (in consultation with ECoW, and other specialists where required). Reinstatement works are those undertaken during construction and aim to redress temporary hardstanding areas and any damage inflicted on the landscape as part of the construction works.

18.1.2 Reinstatement will be carried out as construction progresses at all times where possible, e.g. the timely immediate reinstatement of infrastructure verges where there is cable laying is not specified. Reinstatement will not be neglected in favour of track construction progress.

18.2. Borrow Pit Reinstatement

18.2.1 It is expected that blasting operations will take cognisance of the eventual profiling of the borrow pit so as to best create slopes and final topography in keeping with surrounding topography.

18.2.2 Plans will be submitted to the Employer and ECoW for agreement. No reinstatement should be undertaken prior to the agreement of the reinstatement plans.

18.2.3 The Contractor maintains comprehensive records of the location, depth and volumes of all materials used in reinstatement and restoration of the borrow pits, including topographic and photographic evidence.

18.3. Reinstatement Materials

18.3.1 Reinstatement of vegetation will be focused on natural regeneration utilising peat or other vegetated turves or soils stripped and stored with their relevant seed bank. To encourage stabilisation and early establishment of vegetation cover, where available, peat turves or other topsoil and vegetation turves in-keeping with the surrounding vegetation type will be used to provide a dressing for the final surface.

18.3.2 A layer of peat deep enough to allow for 50% natural settling, to support revegetation (minimum 500mm depth) will be agreed with the ECoW and where the recommended depth is not achievable the Contractor will set out alternative plans, in accordance with Section 8 CEMP Departures. In all areas, prior to overlaying with retained turves or reseeding, the ECoW will monitor the depth being attained.

18.3.3 The Contractor will give due consideration to the geotechnical risks associated with over compaction of peat and the placement of peat on steep slopes.

18.3.4 Where turve redressing proves unsuccessful or where turves are lacking due to prevalence of extensive erosion features and associated bare peat, re-seeding (e.g. hydro-seeding) will be part of reinstatement measures (Section 18.4).

18.3.5 Where deemed suitable, and in accordance with the Peat Management Plan, excavated peat from cut and fill sections of infrastructure will be used for redressing infrastructure embankments. No mineral soil (especially clay-rich soils) will be used for dressing the side slopes of tracks to prevent silt runoff. Considering local topography, the Contractor ensures that reinstated embankments and temporary construction features complements surrounding landform and avoids creation of patently engineered construction edges.

18.4. Vegetation Regeneration

18.4.1 The re-use of displaced turves will be the preferred means for regenerating reinstated areas. The Contractor will take all necessary steps to preserve all stripped turves for this purpose.

Seeding

18.4.2 Where there is a shortage of turves, reseeding will be required. The Contractor will submit proposals for re-seeding to the Employer once approved by the ECoW, for acceptance. This proposal will include native seed mixes of local provenance and of equal representation of 2 or more nursery crops to prevent failure from one overrepresented. Application method including any additives (e.g. fertiliser) will also be detailed.

18.4.3 The seed mix must be in keeping with the surrounding vegetation and habitat types and agreed with the ECoW.

18.4.4 Hydroseeding is the most practical method of reseeding. Where required the Contractor will consider the use of a mulch (often wood pulp) to adhere the seed to the ground surface and provide short term protection/cover.

18.4.5 The Contractor is responsible for the success of the regeneration measures, including reinstatement, re-vegetation / hydro-seeding etc. post-construction for a period of up to 2 years from the date of completion. This does not apply to peatland restoration works under the HMP, unless the contractor is contracted to carry out that work,

18.4.6 The Contractor will produce plans indicating where reseeding has been undertaken and the seed mix used for each area. These plans will be submitted to the Employer, ECoW and be updated as areas are seeded throughout the programme of works.

18.5. Reinstatement Monitoring

18.5.1 Throughout the construction period the ECoW records the location of reinstatement undertaken. Further detail of this duty is provided in Section 3.

18.5.2 Within three months of completion of civils works in any area (accounting for winter month inaccessibility), the ECoW inspects the Contractor's reinstatement efforts to determine satisfactory placement of sub-soil, topsoil and turves. The ECoW makes recommendation to the Employer and Contractor for additional effort, e.g. re-seeding.

18.5.3 The Contractor undertakes remedial works, as instructed by the Employer, if the ECoW determines that initial reinstatement is unlikely to deliver required vegetation establishment within at least one growing season. Furthermore, the ECoW records any areas where bare soil/peat prevail and where preferential drainage pathways have been created or are likely to form post construction. The Contractor ensures that such areas are adequately protected from scour and sediment mobilisation that could potentially overwhelm the permanent drainage. The Contractor designs and implements appropriate protection measures.

18.5.4 The ECoW undertakes a final inspection of all reinstated areas at the end of the first growing season following completion of reinstatement. The Contractor undertakes remedial works within the contract two-year defects period if the final inspection finds that the establishment of vegetation is not satisfactory. Examples of unsatisfactory vegetation establishment may include failed turfs due to poor reinstatement practices or drying out, slow or poor natural regeneration due to inadequate topsoil / subsoil resource, or injurious weeds are evident, or compaction.

18.6. Demobilisation

18.6.1 Prior to completion, the Contractor removes every piece of litter or waste and cleans the site. In addition, the Contractor will reinstate (to as near original condition as possible) grassed areas and other natural vegetation, gates, fences and other property affected temporarily by the works.

18.6.2 Any accidental damage or other construction effects are repaired and reinstated or restored by the Contractor to the Employer's satisfaction and in accordance with the Planning Consent and any agreements with the landowners, all prior to taking over by the Employer.

Part 4 Planning Conditions (Relevant to CEMP)

Condition	Status (i.e. pre-commencement, discharged, variation)
To be included within the final CEMP.	

Part 5 Environmental Commitments Register

Matter/Effect Requiring Mitigation	Timing / Phase	Mitigation	Cross Reference
To be included within the final CEMP.			

Part 6 Appendices to CEMP

Appendix 1 Environmental Constraints Map

To be produced following pre-construction surveys and development of Ecological Protection Plans. This will be included within the final CEMP.

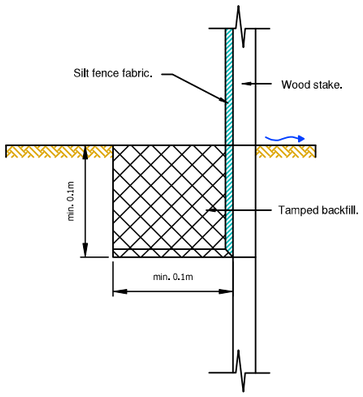
Appendix 2 SSE Incident Reporting Management and Investigation Standard (MS-SHE-010)

To be included within the final CEMP.

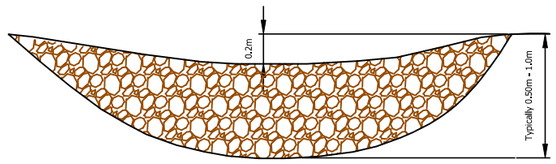
Appendix 3 Typical Drainage Schematics

- Schematic 1 Settlement Ponds, Check Dams and Silt Fences
- Schematic 2 Tracks and Watercourse Crossings
- Schematic 3 Cut and Fill Track
- Schematic 4 Borrow Pit
- Schematic 5 Turbine Bases and Crane Pad Hard-standings
- Schematic 6 Construction Compound

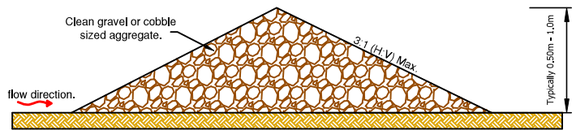
Silt Fence Detail.



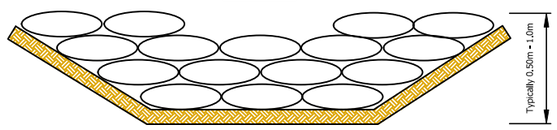
Rock Check Dam Elevation.



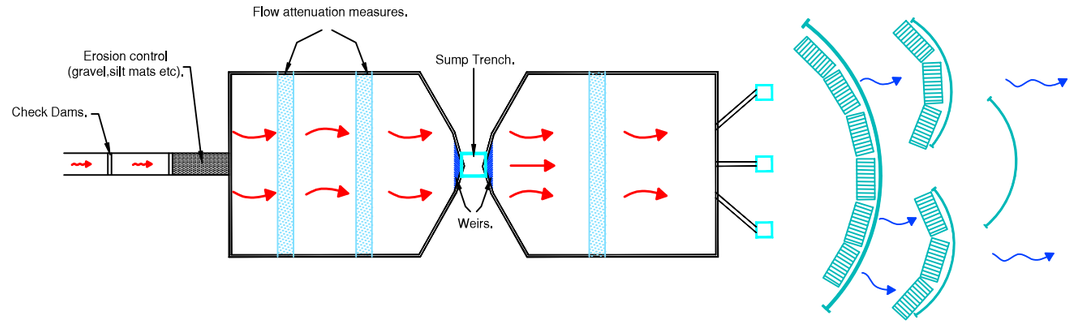
Rock Check Dam Section.



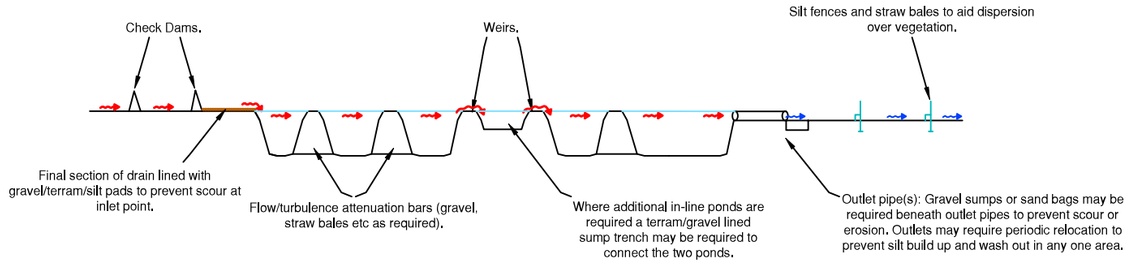
Sand Bag Check Dam Elevation.



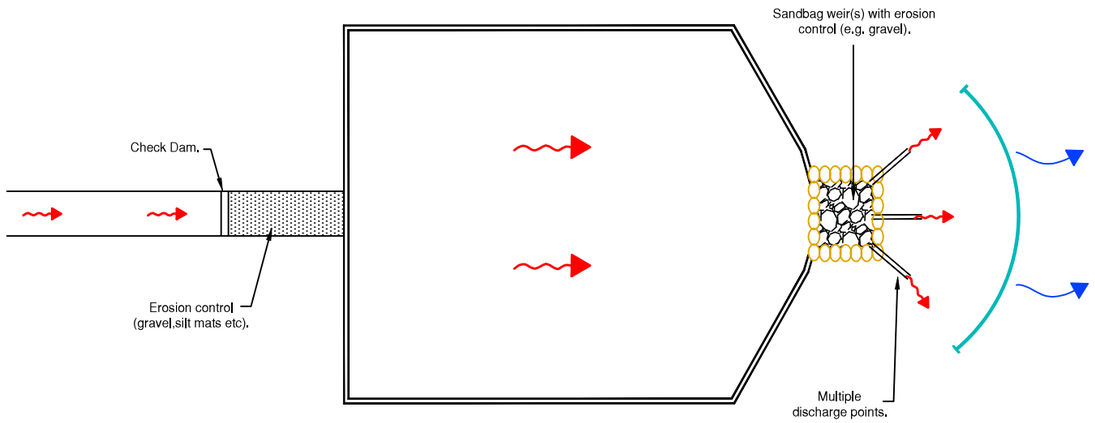
Plan View: In-line Settlement Ponds (typical for higher flow, higher silt load conditions).



Schematic Section: In-line Settlement Ponds.



Plan View: Single Settlement Pond. (Typical for low flow, low silt, load conditions).



sse Renewables

Legend

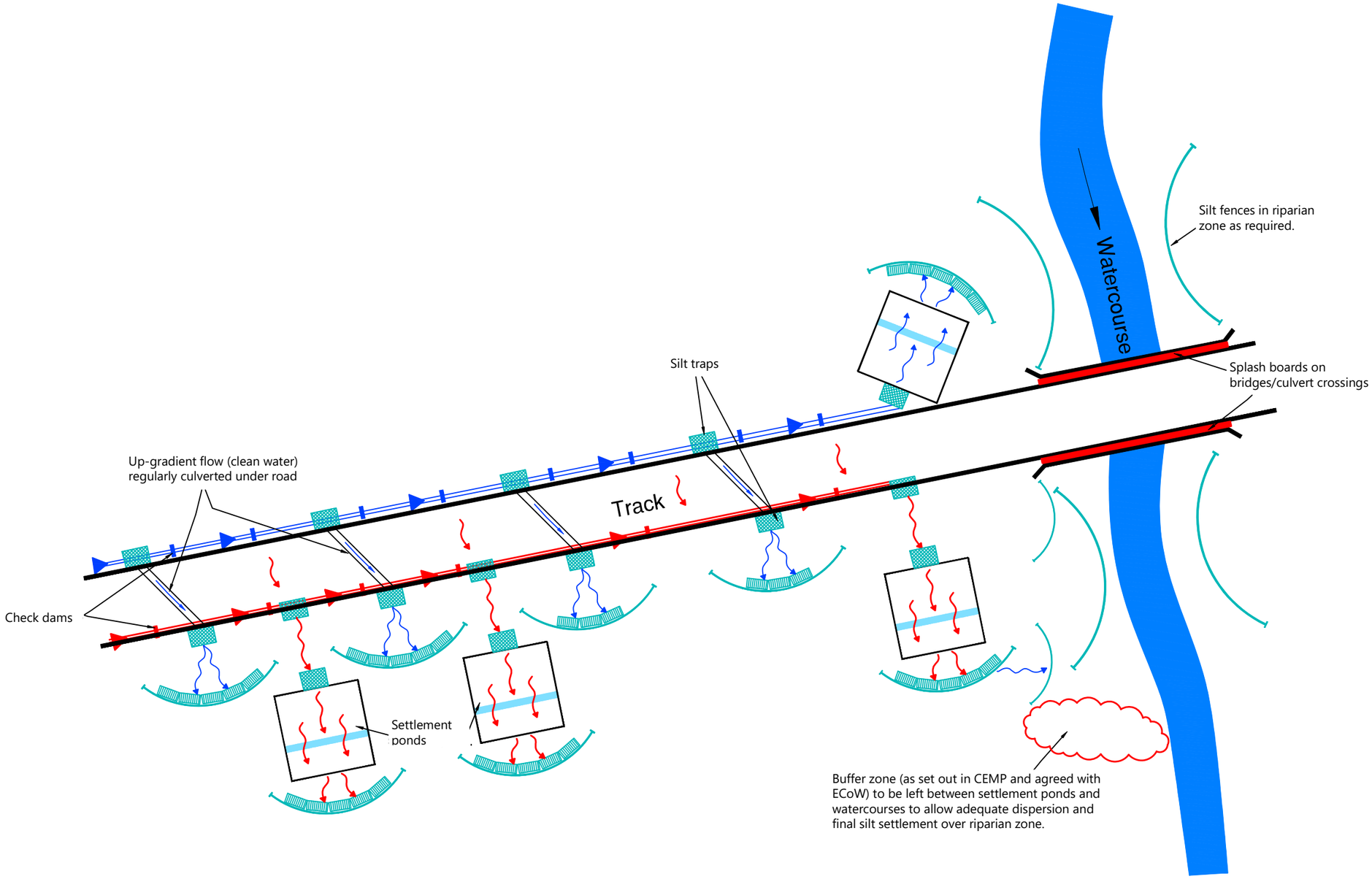
- Silty water
- Clean water

Notes:

Dimensions and number of settlement ponds or requirements for flow attenuation measures will depend on volume and velocity of water and silt load characteristics.

Schematic 1

Settlement Ponds, Check Dams and Silt Fences



sse Renewables

Legend

- Silty water
- Clean water
- Silt trap
- Silt fence and straw bales

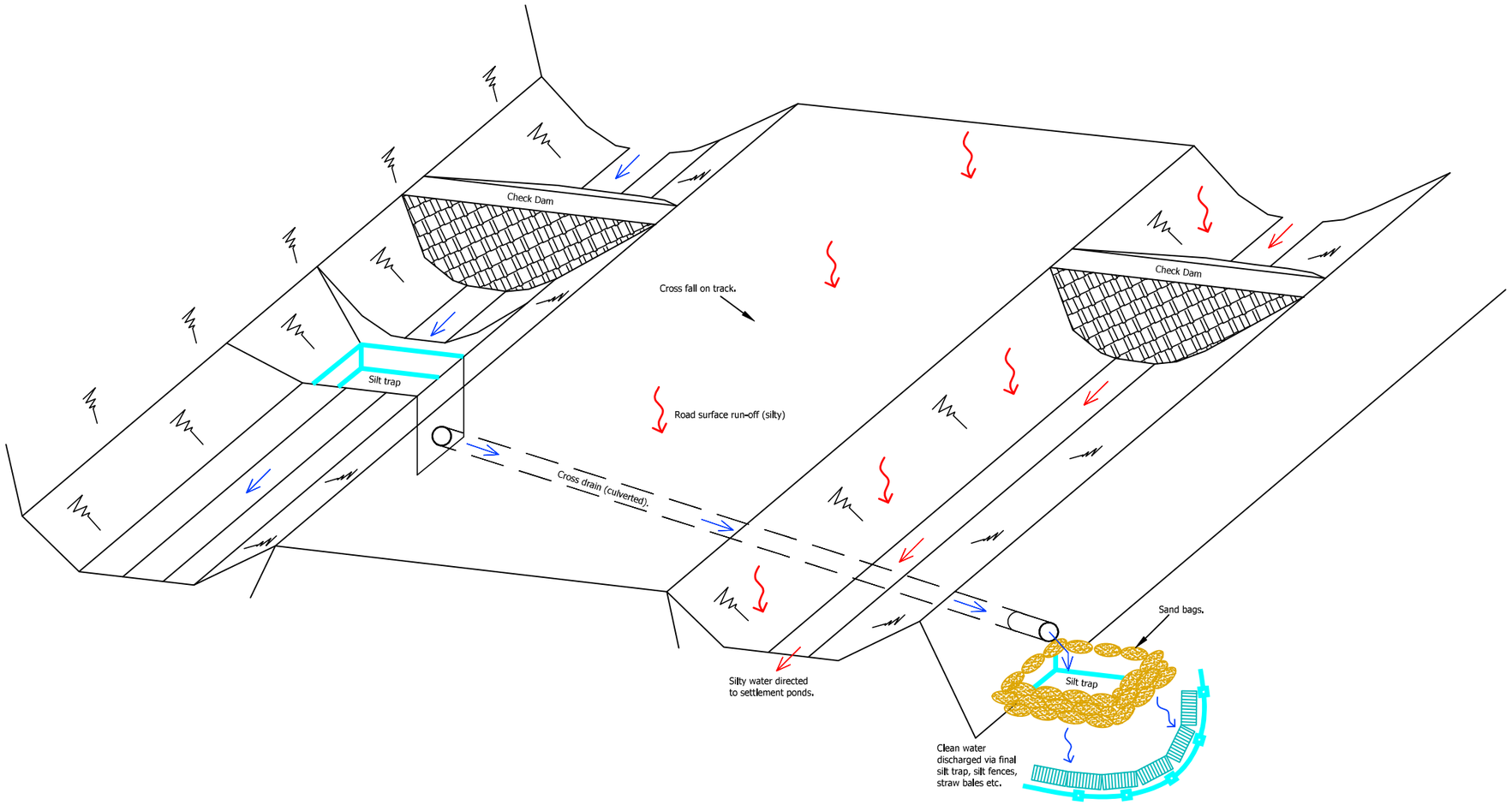
Notes:

In order to reduce volumes of potentially silt laden run-off, 'clean' (up-gradient) surface run-off to be kept away from exposed soil areas and separated from construction works run-off where possible.

Typical details for settlement ponds, check dams and silt fences are shown in Schematic 1.

Schematic 2

Tracks and Watercourse Crossings



sse Renewables

Notes:

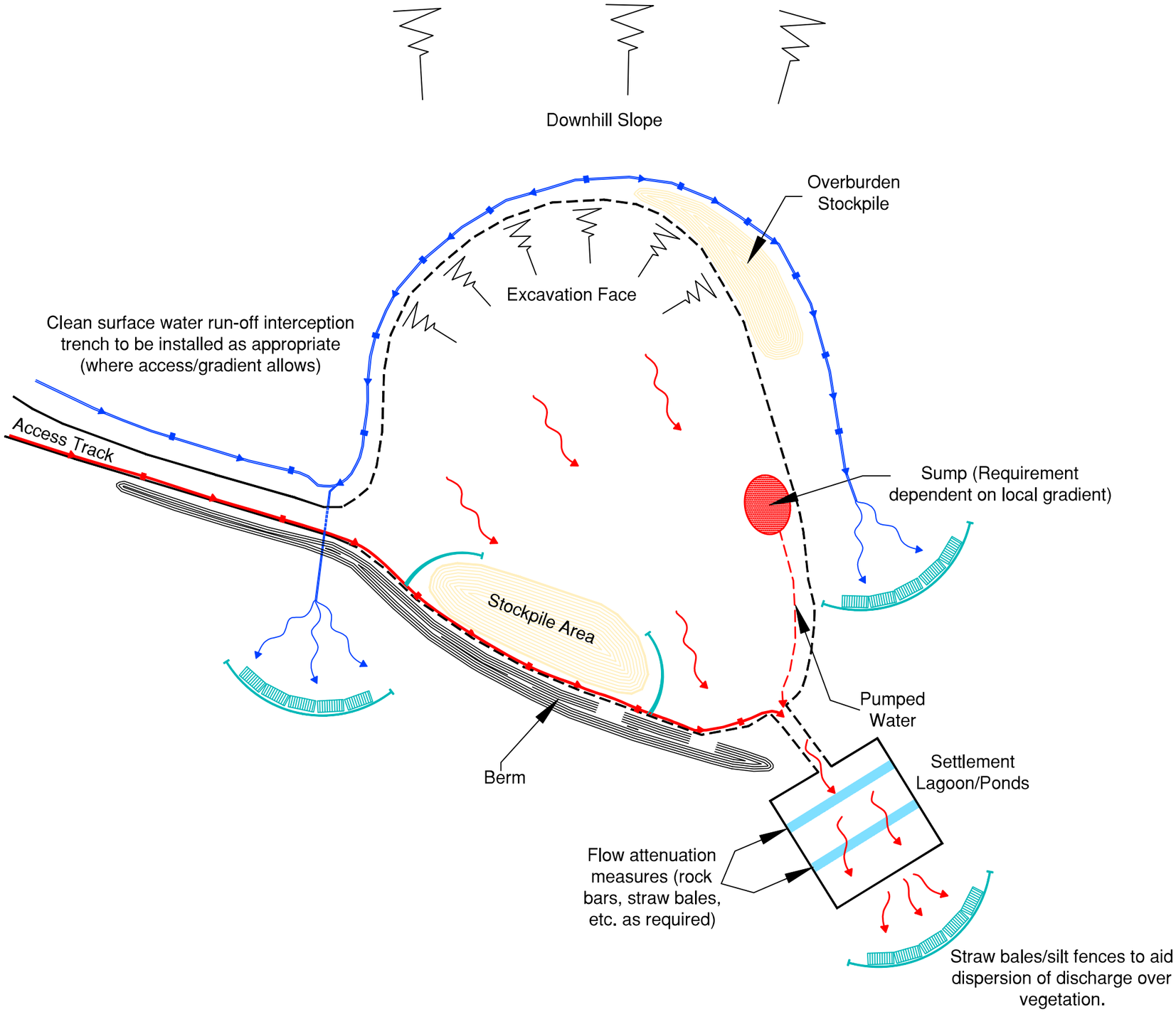
Refer to Schematic 1 for typical details of settlement ponds, check dams and silt fences.

Refer to Schematic 2 for further details of track drainage arrangements.

Where topography or other constraints preclude the segregation of clean/dirty water drainage (as illustrated on this drawing), the road surface cross fall shall be towards the upslope drainage ditch. Flow rates and volumes within such a combined drainage system may be higher and therefore sediment and silt attenuation measures shall be implemented accordingly to control expected increase in flow, erosion and sediment/silt load.

Schematic 3

Cut and Fill Track



sse Renewables

Legend

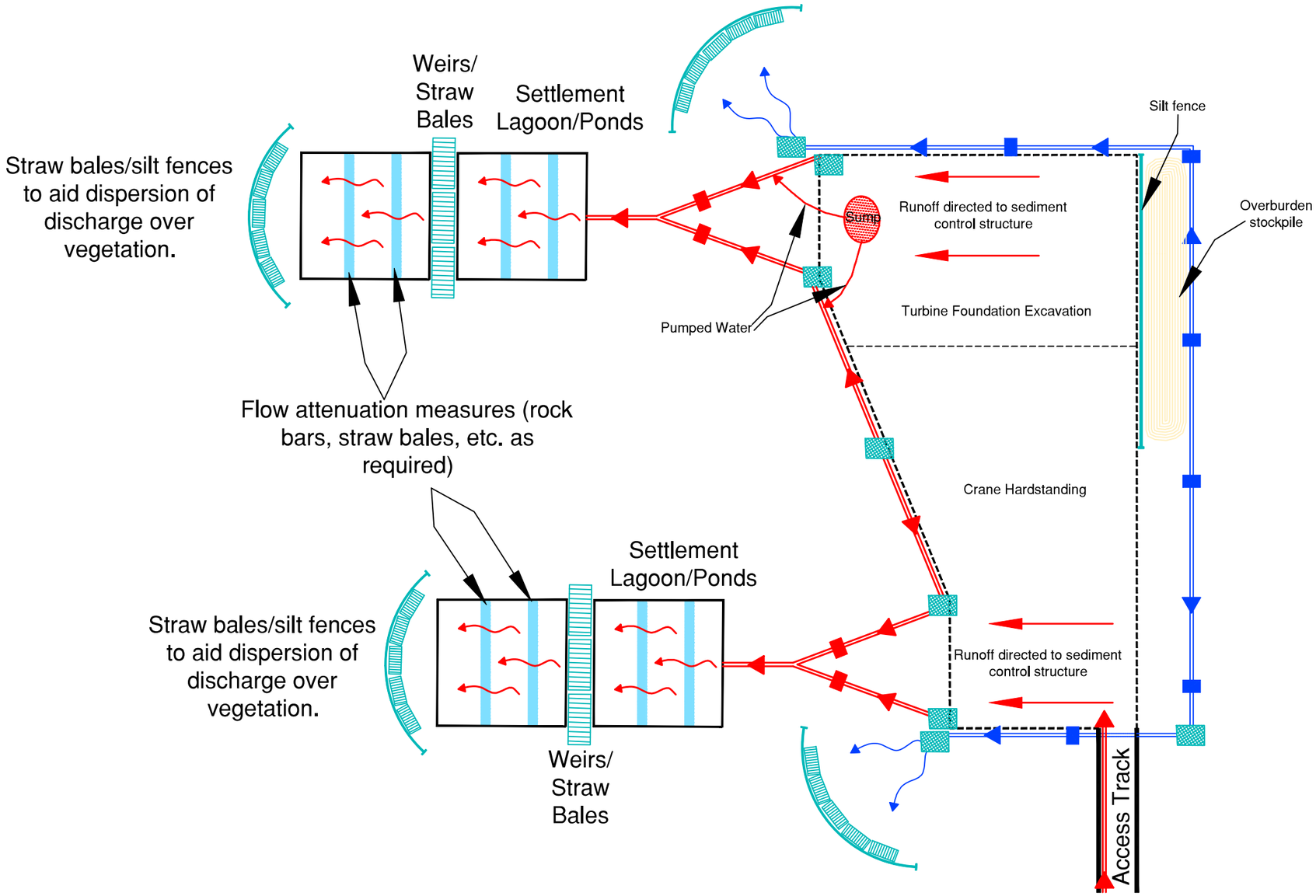
- Borrow pit boundary
- Potentially silty run-off/drainage
- Check dams
- Clean water run-off/drainage
- Silt fence and/or straw bales to aid dispersion (and protect stockpile)

Notes:

Borrow pit configurations will vary from that indicated on this drawing (for instance borrow pits are likely to be off-line of continuing access tracks). The general principles of clean/dirty water drainage segregation, stockpile erosion and run off control, and general sediment and silt control shall apply irrespective of the final borrow pit configuration.

Schematic 4

Borrow Pit



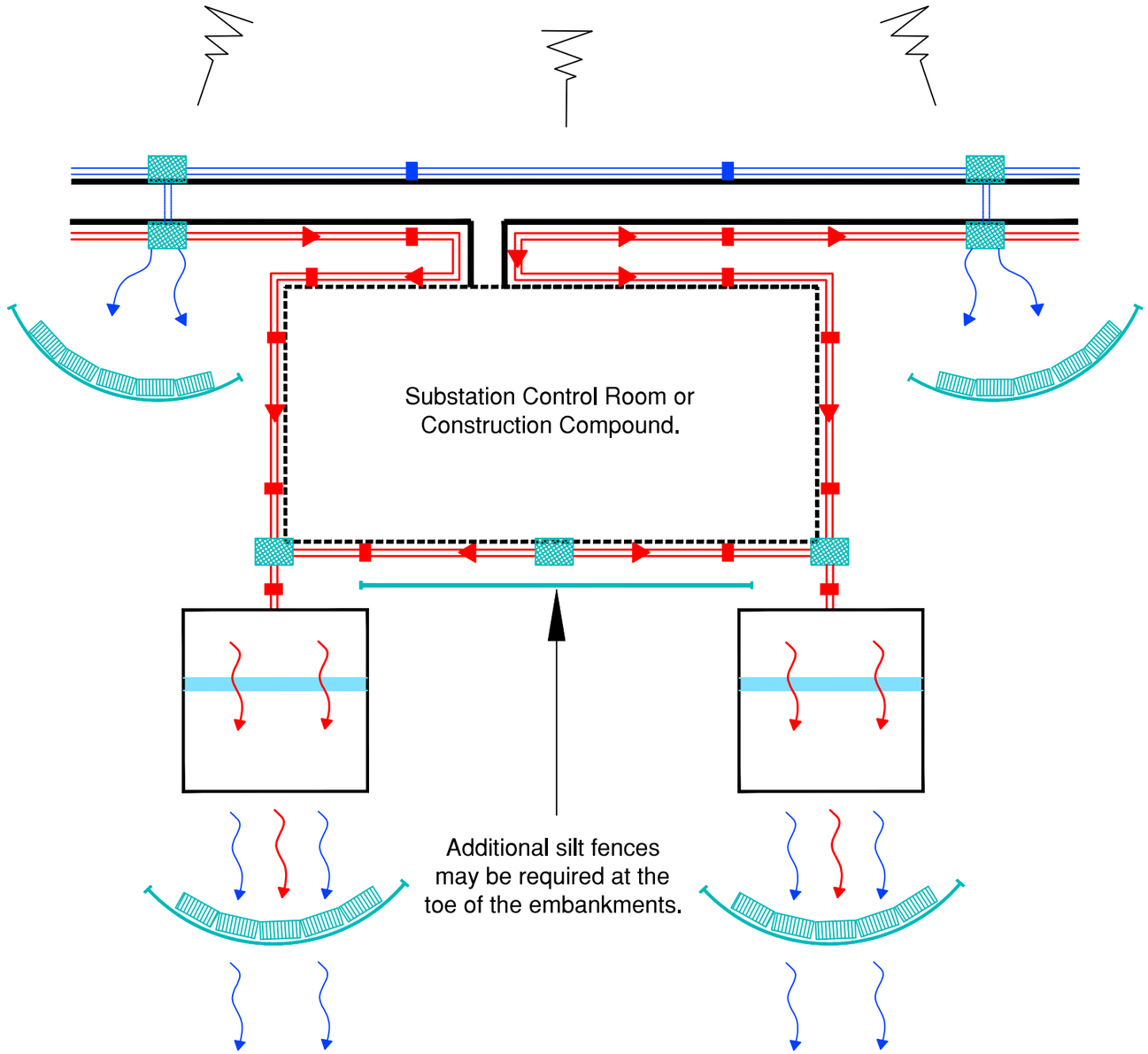
sse Renewables

Legend

- Potentially silty run-off/drainage
- Clean water run-off/drainage
- Silt fence and/or straw bales to aid dispersion (and protect stockpile)
- Check dams
- Silt traps

Schematic 5

Turbine Bases and Crane Pad Hard-standings



sse Renewables

Legend

- Potentially silty run-off/drainage
- Clean water run-off/drainage
- Silt fence and/or straw bales to aid dispersion (and protect stockpile)
- Check dams
- Silt traps

Schematic 6

Substation or Construction Compound

Appendix 4 Peat Depth Drawings

To be included within the final CEMP.