Torfichen Wind Farm

Appendix 3.1

Outline Construction Environmental Management Plan (CEMP)

Author	ITPEnergised
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Contents

1 Introduction

1.1 Purpose of the Document

This Outline Construction Environmental Management Plan (oCEMP) refers to the construction of Torfichen Wind Farm, the Proposed Development by Renewable Energy Systems (RES) Ltd (The Applicant) and will outline the best practice methods for managing the environmental impacts, including mitigation and monitoring, during construction of the Proposed Development.

The oCEMP will be updated and finalised post consent (thereby becoming a CEMP) in line with any relevant planning conditions and in agreement with Midlothian Council (MC), NatureScot and the Scottish Environment Protection Agency (SEPA). Once completed and agreed post-consent, the document will become a CEMP and will no longer be referred to as 'Outline'.

The CEMP will form part of the induction which is mandatory for all employees, contractors and visitors attending the site. All employees and contractors shall familiarise themselves with the content of the CEMP.

This document sets out the minimum standards to be adopted when constructing the Proposed Development. It also provides information about the associated Management Plans which should be read in conjunction with this oCEMP:

- Outline Construction Methodology
- Outline Ecology Management Plan
- Outline Peat Management Plan
- Outline Pollution Prevention Plan
- Outline Noise & Vibration Management Plan
- Outline Dust and Air Pollution Management
- Outline Water Quality Monitoring and Management Plan
- Outline Waste Management Plan
- Outline Archaeology Management Plan

1.2 Aims and Objectives

The purpose of this Outline CEMP is to provide an overview of potential environmental impacts of the Proposed Development, during its construction phase, and describe the management and mitigation measures that will be implemented to minimise those impacts and to protect the environment and sensitive receptors both on-site and off-site. As noted above, the measures set out in this Outline CEMP will be revised and updated as required and included in the final CEMP.

This document has been produced to ensure individuals working on the Proposed Development site know their responsibilities, and to ensure that measures to prevent, reduce or mitigate potentially adverse environmental impacts identified in the Environmental Impact Assessment Report (EIA Report) are carried out.

The objectives of this Outline CEMP are to provide:

- an overview of the potential construction-phase environmental impacts of the Proposed Development;
- guidance on compliance with relevant environmental legislation;
- a means of implementing appropriate mitigation measures to avoid or minimise potential adverse environmental effects (refer to Chapter 15 of the EIA Report for a summary Schedule of Environmental Commitments);
- a working environmental management tool to follow during the construction phase of the Proposed Development;
- definition of roles and responsibilities of the construction team
- a guide for the interaction with relevant statutory authorities and other relevant stakeholders, including the local community and graziers, during the construction phase of the Proposed Development; and
- a basis for monitoring, reporting and maintaining compliance with regulatory requirements for the Proposed Development

This Outline CEMP is a live document and will remain as such throughout the construction phase. The management strategies and control measures detailed within this document and the associated Outline Management Plans will be reviewed and updated, where necessary, to reflect conditions requested by MC, changes introduced by the Applicant's construction team, site-specific outcomes, non-conformances and recommendations arising out of inspections, meetings and audits.

1.3 Roles and Responsibilities

As the Proposed Development is at the application stage, the Outline CEMP has been developed to provide advisory guidance and describes good construction practices. This is a live document and will ultimately be provided to the contractors appointed to construct the Proposed Development, forming part of the documentation required to ensure compliance with planning requirements, environmental and other legislative requirements, and environmental commitments made in the EIA Report.

The Outline CEMP takes account of and refers to information contained within the EIA Report.

The Outline CEMP will form part of the specification and contract for the works that the Applicant will impose on their contractors as contractual obligations.

It is expected that the contractor selected to construct the Proposed Development will further develop this Outline CEMP with respect to the following:

- task-specific method statements;
- detailed Sustainable Drainage System (SuDS) design;
- requirements for authorisations or licences from SEPA in relation to watercourse crossings and, if applicable, water abstraction;
- Site Waste Management Plan; and
- additional Management Plans as may be required by planning conditions.

The implementation of the Outline CEMP (including procedures, record keeping, monitoring and auditing) will be overseen by an Environmental Clerk of Works (ECoW) who will be appointed by the Applicant to ensure compliance with this document and current legislation.

It is envisaged that environmental management meetings will be held between the ECoW, the contractor and the Applicant to report on environmental mitigation measures and performance, and to identify actions for improvement where necessary.

1.4 Project Status

As the Proposed Development has not yet been consented, no detailed design nor intrusive ground investigation works have been completed. Therefore, some of the information provided in this Outline CEMP is necessarily general in nature.

Task-specific method statements incorporating the requirements of this Outline CEMP will be developed by the selected contractors post-contract award, and prior to works starting on site.

1.5 Document Control

As noted, the Outline CEMP (and the CEMP, when it progresses beyond 'Outline') will remain a 'live' document and will be subject to periodic review and updating. The document is intended for use by the Applicant and their contractors specifically involved in the construction of the Proposed Development. When this document is amended, the document control table will be updated (**Table 1.1**) and it will be issued to all personnel specified on the distribution list below (**Table 1.2**).

Table 1.1: Document Control Table

Status	Date Issued	Prepared By	Summary of Alternations
Version 1.0	October 2023	ITPEnergised	Outline CEMP

Table 1.2: Distribution List

Organisation	Contact Name	Email	Telephone Number
Applicant – Renewable Energy Systems (RES) Ltd.	TBC	TBC	TBC
Principal Contractor	TBC	TBC	TBC
Environmental Clerk of Works (ECoW)	TBC	TBC	TBC
Archaeological Clerk of Works (ACoW)	TBC	TBC	TBC
Midlothian Council	TBC	TBC	TBC
Scottish Environment Protection Agency (SEPA)	TBC	TBC	TBC
NatureScot	TBC	TBC	TBC
Historic Environment Scotland	TBC	TBC	TBC

2 Outline Construction Methodology

2.1 Introduction & Project Details

The Proposed Development is located approximately 4 km south of Gorebridge and 9.5 km south-east of Penicuik, within the northern edge of the Moorfoot Hills in the MC area.

The site comprises an area of approximately 853 hectares (ha). The site is set within a mixed landscape of undulating farmland, fragmented moorland and forestry which is populated sparsely with settlements. The elevation on site varies from 270 m Above Ordnance Datum (AOD) along the northern boundary of the site to 490 m AOD near the summit of Mauldslie Hill to the south. Elevation generally decreases towards the north-west.

A number of tributaries to the Black Burn, Latch Burn and Middleton North Burn intersect the site and there is a small area of Ancient Woodland overlapping the northern boundary. The site is primarily agricultural, predominately used for livestock farming.

The Moorfoot Hills Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI), and Royal Society for the Protection of Birds (RSPB) Important Bird Area (IBA) is adjacent to the southern boundary of the site. Gladhouse Reservoir SSSI, Special Protection Area (SPA), Ramsar and IBA sits approximately 700 m west.

The Proposed Development will comprise 18 stand-alone, three bladed horizontal axis wind turbines up to 180 m blade tip height, each with a generating capacity of approximately 6 MW. The associated infrastructure will include: site access, access tracks, crane

hardstandings, underground cabling, on-site substation and maintenance building, energy storage facility, temporary construction compounds, laydown area and potential excavations/borrow workings.

This outline Construction Methodology includes information on the scope of construction works, structure, design strategy, programme and construction methods where available. This will be updated by the Principal Contractor prior to work commencing.

The construction of the Proposed Development will include:

- excavation of borrow pits;
- establishment of the temporary construction compound and temporary enabling works compound which will contain a storage area for wind farm components and temporary site facilities;
- construction of site tracks, including construction of drainage, and excavation of cable trenches;
- construction of wind turbine foundations, and hardstanding areas;
- construction of site substation and energy storage facility;
- cable laying;
- erection of wind turbines;
- connection of power, earthing and communication cables;
- commissioning of the site equipment;
- site reinstatement and restoration of temporary works areas; and
- habitat restoration, enhancement and management works

2.2 Working Hours

The proposed normal construction working hours are anticipated to be prescribed as part of the planning conditions, however as a guide the following times are suggested for audible activities:

- Monday to Friday: 07:00 to 19:00 inclusive; and
- Saturday: 07:00 to 13:00 inclusive.

Some construction activities will be required to take place throughout the different seasons of the year and some construction activities which are highly dependent on the weather conditions will require flexible working hours in order to be completed safely and efficiently. The following activities are particularly relevant:

- ground works, road and hardstanding construction (weather dependent);
- wind turbine base concrete pours (time dependent);
- wind turbine deliveries require to be undertaken when the public road network is not busy and to suit the availability of escort vehicles (time dependent); and
- wind turbine erection (time and weather dependent).

- These operations will not generate particularly excessive noise at any noise sensitive locations.

Subject to detailed pre-construction intrusive ground investigations, it is not yet clear whether blasting will be required at the site. If blasting is required then restrictions will be put in place ensuring no blasting is undertaken outwith the hours of 10:00 to 12:00 and 14:00 to 16:00 Monday to Friday, and 10:00 to 12:00 on Saturdays. There will be no blasting on Sundays or Bank Holidays.

Should any work need to be undertaken outside of the agreed hours, dispensation will be obtained from MC prior to the commencement of such works.

2.3 Programme

The construction programme will consist of the following principal operations, listed sequentially wherever possible. The Proposed Development will likely be phased so that certain activities will take place concurrently:

- construction of the temporary site compound and establishment of temporary site facilities;
- excavation of stone from on-site borrow pits;
- construction of access tracks, including construction of watercourse crossings, and excavation of cable trenches;
- construction of 'Wind Farm Walk' footpath;
- construction of concrete batching plant;
- construction of wind turbine foundations, crane pad hardstanding areas, substation and energy storage facility;
- installation of underground cabling;
- delivery and erection of wind turbines;
- connection of on-site electrical power and signal cables;
- commissioning of site equipment;
- site reinstatement and restoration of temporary works area; and
- habitat restoration, enhancement and management works (will continue into the operational period)

Construction is provisionally expected to commence in 2027 and last for 24 months. The start date for the commencement of construction will be confirmed at a later date. A detailed construction programme will also be provided prior to commencement of works.

2.4 Community Liaison

At the earliest possible stage, the Applicant will actively engage with local residents to discuss the programme of work, learn of any concerns they may have, and determine how the Principal Contractor can minimise the impacts of construction on local residents.

The PM / Client will be the first point of contact for any queries and/or grievances regarding the construction of the Proposed Development and will be responsible for:

- Recording all queries and/or issues raised;
- Responding in an appropriate and timely manner,
- Liaising with the planning authority in connection to any complaints; and
- Monitoring any actions that need to be implemented.

2.5 Principal Contractor

The Principal Contractor is responsible for co-coordinating the activities of all other parties/contractors working on the site to maintain safe working practices, including:

- management and programme control of all design and construction interfaces, including those with the related contractors;
- assuming the role of Principal Contractor under the Construction Design and Management (CDM) Regulations 2015;
- meeting the requirements of all relevant planning conditions;
- providing security and maintenance for the full development site including but not limited to the site compound during the contract;
- providing appropriate welfare and site accommodation for all contractors working on site;
- management of all construction related traffic entering and leaving the site; and
- liaison with, in conjunction with the Applicant, all relevant stakeholders and third parties including MC, NatureScot, SEPA, HES, Scottish Water, relevant landowners and graziers, the Local Roads Authority and the Health and Safety Executive (HSE).

2.6 Site Compound

The Principal Contractor will establish the temporary construction compound on-site. This will house temporary portable cabin structures to be used as the main site office and welfare facilities, including toilets, kitchen and provision for sealed waste storage and removal. The area will also be used for the storage and assembly of turbine components, parking for vehicles, containerised storage for tools and small parts, oil and fuel storage, and a concrete batching plant.

Typically, granular fill material and a compacted capping layer will be laid over geotextile to form the construction compound area and to provide a suitable platform for heavy plant.

It is anticipated that potable water will be brought to site for use as drinking water (by bowser). A high-level storage tank will be installed on-site. A suitably sized generator with

integral bunded fuel tank will be located within the compound to provide temporary power during the construction period.

Welfare facilities will consist of a mess room, drying room/changing room and toilets provided by the Principal Contractor. Food and drink may only be consumed in the mess room to avoid risk of contamination and to minimise encouragement of rodents. Toilets will be served from the temporary water supply. The waste will be managed by use of sealed storage and removal from site, or by use of a septic tank and soakaway. Any septic tank discharge to the environment will be authorised by SEPA prior to use, in accordance with the requirements of the Water Activities (Controlled Activities) (Scotland) Regulations 2011 (referred to as the Controlled Activities Regulations, or CAR).

All materials, plant and equipment shall be stored within the site boundaries within designated construction compound and laydown areas. Storage of liquids (e.g. fuel oil) and spillage mitigation measures are described further in the Outline Pollution Prevention Plan.

All areas of the site, including accommodation areas, shall be kept clean and tidy with a regime of good housekeeping established to facilitate mobility of personnel and plant/equipment around the site and minimise potential hazards and vermin.

A Site Waste Management Plan (SWMP) will be produced by the Principal Contractor prior to starting on site. The SWMP aims to minimise waste from imported materials and waste created on-site during the construction and excavation processes. The SWMP will minimise the quantities of imported materials through good design and best practice, minimise waste and optimise any waste arisings.

For the duration of the construction period, an area will be set aside within the construction compound to accommodate road vehicles for the construction work force and site visitors. Parking will not be permitted in any other areas, on or off-site. Segregated areas and signage will be erected within the construction compound to protect the workforce from moving vehicles. At the end of the working day, all construction diggers, generators, dumpers and cranes will be parked safely and securely, to minimise vandalism and unwanted attention from members of the public. For certain plant items this is likely to be at the construction compound, however the cranes and potentially some other plant will remain on the hardstandings at work locations so long as adequate security is provided.

Traffic movements on local roads will be managed effectively to minimise the impact to local traffic journeys. The framework of a Construction Traffic Management Plan for off-site vehicular movements has been prepared (refer to EIA Report **Appendix 11.1** and this will be further developed and agreed with MC prior to commencement of construction. A wheel wash will be available at the security compound.

The Principal Contractor will ensure the following:

- The footprint of the compounds is minimised where possible;
- The compounds will segregate vehicle and pedestrian movements;

- Adequate, clean welfare facilities will be provided for all staff;
- All working areas will be kept in a clean and tidy condition;
- If lighting is required, it will be designed to minimise light pollution;
- Specific smoking areas will be provided with appropriate containers for smoking waste; and
- All fencing, gates and/or hoarding will be inspected regularly and repaired and maintained as necessary.

Prior to occupying the sites for the construction compounds, the Principal Contractor will undertake a survey with the landowner (or landowner's representative) to record the condition of the land prior to entry. This will include a video and photographic record.

As required the Principal Contractor will fence off active working areas of the construction compounds and wider site to prevent members of the public or stray animals from entering the working areas. Any fencing or hoarding will ensure the free movement of wildlife and watercourses. All fencing and hoarding adjacent to public roads will maintain an adequate visibility at junctions. The Principal Contractor will not display or allow to be displayed any advertisement, notice or graffiti on any hoardings or fencing. All temporary hoarding and fencing will be removed following the completion of construction.

2.7 Site Works

Access Tracks

The Proposed Development site will be accessed from a newly constructed junction on the B7007 at the south-east of the site, leading to on-site tracks which will provide access to turbine and other infrastructure locations.

The design of the access tracks has been developed to minimise track length, reduce environmental impact, shorten construction time, and minimise road-stone requirement. Subject to confirmation via a planning condition, an allowance has been made for new access tracks to be routed within a micro-siting allowance of up to 50 m, to allow for potentially unsuitable ground conditions or unforeseen environmental constraints identified by pre-construction surveys.

The access tracks shall have a typical average width of 6 m, minimum 4.5 m running width on straight sections with local widening on bends, and at junctions. A construction thickness of approximately 250 mm to 500 mm of compacted crushed aggregate will be applied. This will depend on the construction method and ground conditions established once ground investigation works are carried out.

Access tracks will be set out to suit site layout, prior to any removal of vegetation and topsoil using GPS surveying equipment. For founded access tracks, the vegetation and

topsoil will then be stripped to formation level ensuring that all turves are stored vegetated side up.

Founded access tracks shall be constructed on the subsoil or on underlying bedrock. Dependent on ground conditions, a geogrid may be utilised to provide structural stability and a geotextile membrane installed to limit the migration of fines. The geogrid/geotextile shall be laid directly on the subsoil. Floated access track sections will be constructed on the peat surface without any vegetation stripping or excavation of materials.

For founded access tracks, all of the upper topsoil layer, together with turves, will be stored separately from the rest of the subsoil in piles adjacent to, or near the access tracks for later reinstatement (for information on appropriate management of peat, where applicable, refer to **Section 4** and EIA Report **Technical Appendix 10.2**) All soil will be stored in accordance with NatureScot guidance - Good Practice during Wind Farm Construction 4th Edition (2019), General principles for reinstatement of soils.

The access track and running surface will then be constructed by tipping and compacting crushed stone to a thickness which allows the required bearing strength to be achieved. This thickness will depend on the underlying ground conditions. The capping layer of stone will comprise finer material to provide a smooth-running surface.

The methodology of construction of the new and upgraded access tracks will be determined following ground investigations and agreed with SEPA.

Edge protection will be installed alongside the access tracks.

Following construction, the appropriate topsoil and vegetation shall be used to reinstate the track shoulders and wind turbine foundation areas. Excess soil, peat and turves will be re-used at suitable pre-determined locations on the site in consultation with the ECoW, avoiding double handling where possible.

Typical access track cross-sections are shown on **Figure 3.5** of the EIA Report.

Aggregates will be imported from local quarries with all material being UKAS certified to be free of contamination and/or from on-site borrow pits. Concrete will be batched on-site.

Sufficient signage will be installed on-site to clearly define the boundary of the works and to advise of any hazardous areas accessible to the public. Secure and appropriate boundaries shall be established to ensure that entry to specific hazardous areas of the site by unauthorised persons is prevented.

Watercourse Crossings

Environmental mitigation measures in line with standard good practice guidelines will be adopted during construction to prevent any pollution of the watercourses across the site.

The proposed site infrastructure requires watercourse crossings on vehicular tracks, comprising 11 new culverts.

The design and installation of the crossings shall follow appropriate guidance from the following documents:

- SEPA, WAT-PS-06-02: Culverting of Watercourses Position Statement and Supporting Guidance v2 (2015);
- SEPA, WAT-SG-25: Engineering in the Water Environment Good Practice Guide - River Crossings (November 2010); and
- CIRIA (2010). Culvert Design and Operation Guide - Report C689F.

Wind Turbine Foundations

Wind turbine foundations are expected to comprise either gravity type or piled type foundations. The anticipated construction methodology is described below.

Prior to any excavations, the Principal Contractor will ensure that a SuDS is installed to prevent silt pollution to the surrounding area. Once complete, the Principal Contractor will strip and set aside existing vegetation, and strip and stockpile topsoil from the affected area. They will then excavate subsoil and stockpile in accordance with best practice guidance, locating away from drainage paths and buffer zones to minimise the possibility of silt pollution.

Once excavation has been completed to foundation formation level, a layer of compacted crushed stone will be laid to provide a firm working surface. The binding concrete will be placed on this to provide a level work surface for the fabrication of reinforcement cages.

Next the steel reinforcement will be lifted into place and the cages will be established. Following completion of the cages, the Principal Contractor will place concrete shutters and then commence first phase concrete pours. Once the concrete has cured to the specified strength, the shutters will be stripped and set aside for reuse. Electrical ducting will be included within the foundation to ensure cabling is not impeded.

The second phase reinforcement with wind turbine anchor ring will then be installed, followed by the placing of concrete shutters and second phase concrete phase pour. Once the concrete has cured to the specified strength, the shutters will be stripped and set aside for reuse.

The Principal Contractor will then backfill around the foundation from stockpiled materials ensuring materials are replaced in layers encountered during initial excavation. Topsoil will be placed to depths encountered during initial excavation. Turves will then be replaced where possible. Alternatively, the Principal Contractor will re-seed the area with an approved seed mix.

All earthworks, the storage and movement of materials and reinstatement will be undertaken in accordance with the PMP (refer to **Section 4**, and the Outline PMP provided in EIA report **Appendix 10.2**).

Wind Turbine Works

Wind Turbine components will be transported to the site in accordance with the Construction Traffic Management Plan (CTMP) and route survey review (refer to outline CTMP provided in EIA Report **Appendix 11.1**.

Wind turbine component deliveries will be co-ordinated by the wind turbine supplier. Specialist haulage vehicles of varying length, dependent upon the component, will be used. The police will be in attendance to escort abnormal loads.

Delivery of wind turbine components will generally be timed to avoid transportation during peak times, Monday to Friday to avoid school and commuter traffic on the local roads.

Some wind turbine components may be pre-delivered and offloaded at the crane hardstandings or temporary laydown areas. Remaining wind turbine components will be delivered as just-in-time, to be lifted directly from haulage vehicles. This will be dependent on the final wind turbine supplier's method statements.

Adverse weather may delay lifting operations. If this is the case and components cannot be lifted just-in-time, suitable provision will be made for offloading on hardstandings, or laydown areas.

Wind turbine components will be lifted by adequately sized cranes (a large main crane and smaller tail crane) positioned and fixed as per the wind turbine supplier's method statements.

Upon completion of the erection, all anchor bolts will be tightened and the internal fit out of the wind turbine completed. The wind turbines will then be connected to the site's electrical cable network. Wind turbine testing and commissioning will be undertaken by specialist qualified and experienced engineers.

Adequate temporary lighting will be available for use after dark or in poor lighting conditions.

Upon completion of the erection of the wind turbines, the relevant records will be made available in hard copy, for review and incorporation into the Proposed Development's quality plan.

Maintenance

During construction, the access track network will be subject to regular heavy plant movements and as a result will likely deteriorate, develop pot-holes or ruts. Any areas which fail, suffer deterioration or rutting during construction will be restored as part of the ongoing maintenance obligation of the Principal Contractor.

Reinstatement

Reinstatement and restoration of the site will be undertaken as soon as practicable following the completion of each element. Following completion of construction works and when most

of the heavy plant has left site, the Principal Contractor shall undertake final restoration works. Further detail is provided in the Outline PMP (**Appendix 10.2**).

2.8 Environmental Training

Inductions

All project personnel and sub-contractors will receive an Environmental Induction. No personnel, including sub-contractors, will be permitted to undertake any work on-site without undertaking a site induction. The site induction will evolve to reflect changes in the CEMP as the project develops. Environmental topics covered in the induction shall include, but will not necessarily be limited to:

- Water Resources;
- Pollution Prevention;
- Emergency Response Procedures;
- Waste Management and Housekeeping;
- Management Structure;
- Duties and Responsibilities;
- Relevant Procedures;
- Ecologically and Ornithological Sensitive Areas and Times;
- Incident and Non-Conformance Reporting;
- Consents and Licences and Compliance;
- Legislation; and
- Environmental Good Practice.

Toolbox Talks

Toolbox Talks (TBTs) on specialised topics shall supplement the induction course. TBTs shall be used to highlight issues of concern and to disseminate any new information or responsibilities. They will also be used as a means of providing basic environmental training to crews on a specialised topic, e.g. water management. The TBTs also offer site personnel the opportunity to provide feedback. TBTs would be appropriate when, for example:

- there is a change to existing legislation, which requires an operational change;
- site inspections or audits have identified corrective actions which require rolling out;
- work is being undertaken in particularly sensitive areas or areas with associated risks e.g. areas around General Wades Military Road (GWMR); and
- there are significant changes in environmental conditions, e.g. heavy rainfall.

Records of all TBTs undertaken, including attendance, will be maintained.

3 Outline Ecology Management Plan

3.1 General Best Practice

The Applicant will appoint a suitably qualified ECoW prior to the commencement of any construction activities. The ECoW will be present and oversee all relevant construction activities as well providing toolbox talks to all site personnel with regards to priority species and habitats. The ECoW will also undertake monitoring works and deliver briefings to relevant staff and contractors as appropriate.

Not more than 12 months prior to construction, the ECoW or other suitably qualified ecologist will undertake a preconstruction protected species survey to supplement and update the baseline survey information contained within the EIA Report. The aim of this survey will be to provide up to date information in order to finalise required mitigation proposals, in addition to completing a final check prior to construction for protected species. The CEMP will be updated with the latest survey results and management requirements.

Plant and personnel will be constrained to a prescribed working corridor, thereby minimising damage to habitats and potential direct mortality and disturbance to species.

The construction compound, storage sites and access tracks will avoid, as far as practicable and within micrositing allowances, areas identified as being of ecological value by the ECoW.

Culverts will be designed to be adequately sized and orientated in the correct direction for wildlife in accordance with good practice.

Any trenches dug during construction and decommissioning operations will be covered at the end of each day.

Alternatively, mammal ramps will be positioned in such a way that trapped mammals may be allowed to escape.

All exposed pipes and trenches will be checked each morning prior to starting construction activities. If trapped animals are found, the ECoW or specialist animal handler will be contacted to remove any distressed animals.

Regular ecological toolbox talks will be given to all site personnel on the potential presence of protected species and any measures that need to be undertaken should such species be discovered during construction activities.

As part of the environmental toolbox talks given to site construction staff, the importance of adhering to speed restrictions and watching out for wildlife and grazing farm stock will be highlighted.

3.2 Breeding Birds

Protection of breeding bird nests from damage and/or destruction during the breeding season will need to be ensured. Wherever possible, vegetation clearance will occur outside the breeding season (i.e. between October - February, inclusive), to ensure that no active nests are damaged or destroyed by the proposed works. This would include any areas of shrub clearance and vegetation removal for access tracks, compounds or turbine bases due to the populations of ground nesting birds on and around the site.

Unnecessary disturbance to habitats will be avoided by minimising the extent of ground clearance and other construction practices as far as practicable.

Where vegetation clearance and/or ground disturbance has to take place between March and August inclusive, any areas for tracks, material laydown, turbine bases and other infrastructure will be kept short and largely devoid of vegetation during the breeding season until construction is complete. This will be achieved by regular ploughing, mechanical cutting or strimming during the breeding season. It is recommended that the areas are initially ploughed in early to mid-March, and again in May if they have not been developed by that point. Between these times, the cleared areas will be visited by an ECoW, to check whether they have been colonised by nesting birds, with advice given on any restrictions these pose and whether further measures are needed to keep the vegetation under control and deter birds from nesting. These measures will be required for each breeding season during the construction phase.

Due to the proximity of lochans identified as breeding sites for red throated diver, construction activities done within 750 m of potential breeding lochans between April and August In the event that works within 750 m of lochans during April to August is unavoidable, survey works will be undertaken in advance by the ECoW, to identify breeding status on the lochans and inform the specific location and timing of works to avoid or minimise disturbance. If a breeding attempt is present on the lochan the ECoW will undertake a watching brief for all significant construction events and stop works if evidence of disturbance is identified. The list of events requiring a watching brief will be agreed with NatureScot in advance of works commencing.

The ECoW will undertake construction phase surveys of birds within the Proposed Development and will record information of breeding success as far as is possible (avoiding disturbance, and following relevant NatureScot survey guidance (SNH, 2017)). The data will be used with pre-construction baseline survey data and future data obtained during monitoring work to provide population information across each phase of the development.

3.3 Protected Species

A Species Protection Plan (SPP) will be produced and agreed prior to construction commencing and then implemented during the construction period. The SPP will detail

measures to safeguard protected species known to be in the area including bats, otter, and water vole, with reptiles included as a precaution.

Specific measures will be detailed in the SPP to be undertaken in the event of discovery of otter resting places (not identified during surveys during the EIA). Such measures will include demarcation of suitable exclusion areas, depending on the nature of the resting place (breeding or non-breeding), with construction activities in the vicinity to be avoided at dusk and dawn where possible, with advice from the ECoW. The site of the Proposed Development is such that, at this time, the destruction of any newly identified resting place is considered unlikely to be required. However, should this be the case, NatureScot will be consulted and a development licence sought for the destruction of an otter resting place.

No obstacles/obstructions will be placed either in drainage ditches or bankside that may impede the safe passage of otters throughout the site, or obstruct access to any potential resting sites.

Working in the vicinity of identified active otter habitat will be avoided during the hours of darkness and within two hours after sunrise and two hours before sunset. This can be reduced to one hour between November and February due to limited daylight.

Any exposed pipe systems will be capped when not being worked and exit ramps provided for any exposed trenches or excavations (to prevent otters entering and becoming trapped).

All staff will be informed of the potential for otters on site and 10mph speed controls within the Proposed Development site to limit the risk of road traffic accident mortality will be implemented.

3.4 Fish

In order to prevent pollution of watercourses and impacts on fish within the site (with particulate matter or other pollutants such as fuel), best practice techniques will be employed. These are outlined in Chapter 8: Ecology and the Outline Pollution Prevention Plan section below.

4 Outline Peat Management Plan

An Outline PMP is provided in EIA Report **Appendix 10.2**.

This will be updated to a construction-phase PMP prior to construction commencing, to include additional information gained from detailed intrusive ground investigation works. Details of the updated PMP will be referenced within the CEMP.

5 Outline Pollution Prevention Plan

This outline PPP details the controls which, in conjunction with the mitigation measures outlined throughout the CEMP, aim to avoid pollution incidence. It also provides details of the measures to be implemented should a pollution event occur.

5.1 Legislation & Guidance

The legislation and guidance relevant to the Outline PPP includes but is not limited to:

- Control of Pollution Act 1974;
- Environmental Protection Act 1990;
- The Environment Act 1995;
- Control of Substances Hazardous to Health Regulation 2002;
- Clean Neighbourhoods and Environment Act 2005;
- Environmental Liability (Scotland) Regulations 2009;
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011;
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 – A Practical Guide Version 9.2 (SEPA, 2022); and
- Guidance for Pollution Prevention 21: Pollution incident response planning Version 1.1 (SEPA and wider UK equivalents, 2021).

5.2 Contacts

The following contacts within **Table 5.1** should be contacted in the case of an emergency by any member of staff:

Table 5.1: Emergency Contacts

Contact	Office hours	Out of hours	Address
Fire Brigade	999	999	35-40 Abbey Rd, Dalkeith EH22 3AD
Police	01786 289070	999	35 Hunterfield Rd, Gorebridge EH23 4TP
Ambulance/Hospital	0131 314 0000/ 0131 454 1001	999	Gyle Square 1, Edinburgh, EH129EB (Scottish Ambulance

			Service/70 Eskbank Rd, Bonnyrigg, Dalkeith EH22 3ND (Midlothian Community Hospital)
Community Automated External Defibrillator (AED)	N/A	N/A	114 Hunterfield RdGorebridge EH23 4TX

The following staff in **Table 5.2** should be contacted following any pollution incidence by the site operations staff:

Table 5.2: Pollution Incidence Contacts

Contact	Office Hours	Out of hours	Address
Principal Contractor Emergency Response	TBC	TBC	TBC
Applicant's ECoW	TBC	TBC	TBC

The following in **Table 5.3** should only be contacted by the Applicant's ECoW or the Principal Contractor's Site Manager as required following a pollution incidence.

Table 5.3: External Contacts for Pollution Incidence

Contact	Office hours	Out of hours	Address
SEPA	0131 449 7296	0800 80 70 60	Silvan House, SEPA 3rd Floor, 231 Corstorphine Rd, Edinburgh EH12 7AT
NatureScot	01463 725000	N/A	Meadowbank House, 6th Floor, South, 153 London Rd, Edinburgh EH8 7AU
Scottish Water	0800 077 8778	N/A	Main Building, 55 Buckstone Terrace, Edinburgh EH10 6XH
Waste Management Contractor	TBC	TBC	TBC

Specialist Clean Up	TBC	TBC	TBC
Other	TBC	TBC	TBC

5.3 Potential Pollutants

This section of the Outline PPP provides details of the chemicals, products and/or wastes which will be used/created during the construction of the Proposed Development which could potentially cause a pollution incidence. **Table 5.4** will be continually updated throughout the construction period when potential pollutants are identified.

Table 5.4: Site Chemical, Product and Waste Inventory

Chemical/Product/Waste	State	Maximum volume on site	Location	Containment	Risk
Diesel	Liquid	TBC	Within vehicles	TBC	Flammable
Engine oil	Liquid	TBC	Within vehicles	TBC	Flammable
Hydraulic oil	Liquid	TBC	Within vehicles	TBC	Flammable
Cement	Powder	TBC	TBC	TBC	Irritant
Black water	Liquid	TBC	TBC	TBC	Toxic
Paint	Liquid	TBC	TBC	TBC	Toxic
Cleaning fluid	Liquid	TBC	TBC	TBC	Irritant
Other	TBC	TBC	TBC	TBC	TBC

5.4 Pollution Prevention

Prior to construction commencing, the Principal Contractor will undertake testing of the PPP and will update and amend the PPP as required, with particular focus on:

- all watercourses, springs, boreholes or wells located within or adjacent to the development site and the direction of flow;

- site access for emergency vehicles;
- locations of soakaways receiving outflow;
- locations of fire hydrants and spill kits;
- locations for storage of materials; and
- locations of inspection points, oil separators, and locations suitable for portable storage tanks and/or drain blocking.

No significant quantities of hazardous substances are anticipated to be used during the construction works. However, some fuels and oils will be required to be present on the site.

Hazardous substance stores (including fuel and chemical stores) and stockpiles at risk of spillage / leakage of polluting materials will be provided with above ground secondary containment. Bunded compounds will have an impervious base, which can hold at least 110% of the capacity of the tank or drum it contains to minimise the risk of hazardous substances entering the drainage system or the underlying soils and / or groundwater.

All pipelines and fuelling points will be protected from vandalism and unauthorised interference and will be turned off and locked when not in use. Drip trays will be used when filling smaller containers from tanks or drums to avoid drips and spills from entering the ground or drainage system.

Labels will be used to clearly indicate the contents of containers. There should be no storage of hazardous substances near open water or open drains. All fuel storage and associated pipework will be above ground and located on hardstanding.

Deliveries will be supervised, and spill kits will be available in areas where hazardous materials are used or stored. Any areas used for vehicle washing and / or parked vehicles shall include oil interceptors.

On-site vehicle routing will take into consideration the location of any storage areas to ensure that accidental impact does not occur.

Any temporary stockpiling of materials, if required, would be located away from open water and drains. Drums and barrels would be stored in designated bunded safe areas within the site compound to reduce the risk of silt and pollutants entering the surface water drainage system.

The following mitigation measures will be implemented to limit plant emissions and dust creation:

- All staff will operate plant and vehicles in accordance with the manufacturer’s instructions. If possible, filters will be provided on plant anticipated to generate excess emissions. In addition, dust extractors, filters or collectors may be used;

- Cutting, grinding or sawing equipment will be fitted with, or used in conjunction with, suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- All plant and vehicles will be turned off when not in use and will not be left idling. The movement of vehicles around the site will be minimised where possible;
- Where possible, construction plant will be located away from the site boundary and from sensitive receptors;
- The Principal Contractor will use enclosed chutes and conveyors, loading shovels, hoppers and other loading or handling equipment and will use fine water sprays on such equipment wherever appropriate; and
- Where reasonable and practical, the Principal Contractor will avoid the use of diesel or petrol-powered plant and will power plant with mains or battery powered generators.

5.5 Pollution Response

The Principal Contractor will hold on site the following equipment to address a pollution incident:

- absorbents;
- drain mats/covers;
- pipe blockers;
- booms;
- plant nappies;
- drainage trays; and
- pumps.

Prior to commencing on site, all staff will undergo PPP training. This training will cover, but is not limited to:

- legal responsibilities of all staff;
- prevention of a pollution incident;
- response to a pollution incident; and
- location and correct use of response equipment and of PPE.

Details of the staff trained in the pollution incident response will be included within **Table 5.5.**

Table 5.5 – Staff Trained in Pollution Incidence Response

Staff	Training	Date	Date of Training Update

6 Outline Noise & Vibration Management Plan

6.1 Overview

An NVMP will detail the mitigation measures that will be implemented by the Principal Contractor to minimise noise impacts arising from activities relating to the construction of the Proposed Development.

All noise during construction will be managed under the UK Statutory Instruments and guidance that limit noise emissions of construction plant, including:

- guidance set out in BS 5228-1:2009+A1:2014 which covers noise control on construction sites;
- the powers that exist for local authorities under Section 60 of the Control of Pollution Act 1974 to control environmental noise on construction sites; and
- the adoption of Best Practicable Means (as defined in Section 72 of the Control of Pollution Act 1974).

All sub-contractors of the Principal Contractor will be formally required through contract to comply with the noise mitigation measures outlined below.

The following mitigation measures will be implemented by the Principal Contractor and sub-contractors to minimise noise impacts on noise-sensitive receptors:

- Where it is reasonable and feasible, the quietest construction methods will be used. The Principal Contractor will aim to reduce all noise emissions, regardless of the threshold limits
- The Principal Contractor will monitor construction activities at regular intervals to ensure that appropriate Personal Protective Equipment (PPE) is being used by staff during activities identified by Risk Assessments.
- Site inspections shall be undertaken to ensure that plant is being operated with any specified acoustic covers in place. Any excessively noisy plant will be removed from the Proposed Development site for repair or maintenance.
- Local hoarding, screens or barriers will be erected as necessary to shield particularly noisy activities, where assessments deem this to be required or appropriate.
- Plant and equipment:
  - All equipment will be switched off when not in use (including during breaks and down times of more than 30 minutes).

  - The Principal Contractor will ensure that, where possible, noisy plant will not be used simultaneously and/or close together to avoid cumulative noise impacts.
  - Any compressors brought onto site will be silenced or sound reduced models fitted with acoustics enclosures.
  - All pneumatic tools will be fitted with silencers or mufflers.
  - All plant items will be properly maintained and operated according to manufacturers' recommendations in such a manner as to avoid causing excessive noise.
  - All plant will be sited, where practicable, so that the noise impact at nearby noise-sensitive receptors is minimised.
  - If required, fixed plant will include a noise mitigation scheme to ensure that noise limits are achieved. Where practicable, and required, noise from fixed plant and equipment will be contained within suitable acoustic enclosures or behind acoustic screens.
  - Fixed and mobile plant used within the site during the construction period shall not incorporate bleeping type warning devices that are audible outside the site boundary, unless required for health and safety reasons and no other practical alternative is available.
- Traffic and deliveries:
  - Where possible, loading and unloading will be undertaken away from residences (this is reflected in the site design including location of the construction compound).
  - The majority of deliveries will be programmed to arrive during normal working hours only.
  - Care will be taken to minimise noise when unloading vehicles.
  - Construction traffic will be prohibited from unnecessary idling within the site or at the site access points.
  - Night-time deliveries will be minimal and will only be undertaken with special consideration.
- If blasting is required, for example at borrow pits, then a dedicated method statement for suitable control of blasting noise will be produced.

6.2 Noise Complaints

The Principal Contractor's Site Environmental Representative (likely to be the Site Manager) will be the first point of contact for any queries and/or grievances regarding the construction of the Proposed Development. They will be responsible for recording all queries and/or issues raised, for responding in an appropriate and timely manner, and for monitoring any actions that require to be implemented.

The Principal Contractor's Site Environmental Representative will be responsible for recording all complaints raised regarding noise, for liaison with the Principal Contractor and construction staff, and for ensuring that appropriate action is undertaken. The Principal Contractor's Site Environmental Representative will also be responsible for responding to the complaint and explaining the actions undertaken to address the complaint. A record of all complaints made and the actions taken will be maintained and will be available to the MC Environmental Health Officer upon request.

Should a noise complaint be made to MC relating to noise emission from construction of the Proposed Development, and the MC Environmental Health Officer determines that the complaint merits investigation, the Principal Contractor will, within 28 days and at their own expense, employ an independent noise consultant to measure the level of noise emission from the Proposed Development at the property to which the complaint relates. The Principal Contractor shall obtain approval of the employment of the independent noise consultant by MC prior to the noise measurements being undertaken.

The Contractor will provide MC with the independent noise consultant's assessment and conclusions (including all calculations, recordings and raw data) within three months of MC's confirmation of approval of the independent noise consultant.

7 Outline Dust and Air Pollution Management

7.1 Overview

The following mitigation measures will be implemented throughout the construction period:

- The construction site layout will be designed to locate machinery and dust causing activities away from receptors where possible;
- The Principal Contractor will review the daily weather reports and communicate with the Section Engineers so that works can be planned to minimise effects on sensitive receptors; and
- The Principal Contractor will maintain a water bowser on-site to suppress dust along the access tracks as required. If there is a risk of fugitive dust arising from the site works, water spray systems may be set-up to dampen down the material. The Principal Contractor will ensure an adequate water supply on the site for effective dust/ particulate matter suppression/mitigation, using non-potable water where possible and appropriate.

7.2 Transportation & Storage of Materials

The following mitigation measures will be implemented to limit plant emissions and dust creation:

- All staff will operate plant and vehicles in accordance with the manufacturer's instructions. If possible, filters will be provided on plant anticipated to generate excess emissions. In addition, dust extractors, filters or collectors may be used;
- Cutting, grinding or sawing equipment will be fitted with, or used in conjunction with, suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- All plant and vehicles will be turned off when not in use and will not be left idling. The movement of vehicles around the site will be minimised where possible;
- Where possible, construction plant will be located away from the site boundary and from sensitive receptors;
- The Principal Contractor will use enclosed chutes and conveyors, loading shovels, hoppers and other loading or handling equipment and will use fine water sprays on such equipment wherever appropriate; and
- Where reasonable and practical, the Principal Contractor will avoid the use of diesel or petrol-powered plant and will power plant with mains or battery powered generators.

7.3 Construction Plant

The following mitigation measures will be implemented to limit plant emissions and dust creation:

- All staff will operate plant and vehicles in accordance with the manufacturer's instructions. If possible, filters will be provided on plant anticipated to generate excess emissions. In addition, dust extractors, filters or collectors may be used;
- Cutting, grinding or sawing equipment will be fitted with, or used in conjunction with, suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
- All plant and vehicles will be turned off when not in use and will not be left idling. The movement of vehicles around the site will be minimised where possible;
- Where possible, construction plant will be located away from the site boundary and from sensitive receptors;

- The Principal Contractor will use enclosed chutes and conveyors, loading shovels, hoppers and other loading or handling equipment and will use fine water sprays on such equipment wherever appropriate; and
- Where reasonable and practical, the Principal Contractor will avoid the use of diesel or petrol-powered plant and will power plant with mains or battery powered generators.

7.4 Earthworks

The following mitigation measures will be implemented in relation to earthworks:

- Stripping of topsoil will occur as close as reasonably practicable to the period of excavation or other earthworks activities to avoid risks associated with run-off or dust generation;
- Drop heights from excavators to vehicles involved in the transport of excavated material will be kept to the minimum practicable to control dust generation associated with the fall of materials;
- All deposited materials will be compacted, with the exception of peat and topsoil, as soon as possible after deposition; and
- Soiling, seeding, planting or sealing of completed earthworks will be undertaken as soon as reasonably practicable following completion of the earthworks.

7.5 Air Quality Complaints

All dust and air quality complaints will be recorded, causes identified, appropriate measures taken to reduce the emissions in a timely manner and the results recorded by the Principal Contractor's Site Environmental Representative. The complaints log will be made available to MC's Environmental Health Officer, if required.

8 Outline Water Quality Monitoring and Management Plan

8.1 Introduction

Construction of the Proposed Development will require activities to be undertaken near surface watercourses and/or peat deposits. Surface water will be routed to drainage channels and runoff discharged back into greenfield areas.

This outline WQMP outlines the key issues pertaining to the construction of the Proposed Development and the mitigation measures proposed to reduce potential effects.

8.2 Key Issues

Watercourse Crossing

The proposed site infrastructure requires the construction of 11 new watercourse crossings. The locations of the proposed crossings are shown on **Figure 10.1** and schedule of these crossing points, which includes photographs and dimensions of each crossing is shown in **Technical Appendix 10.4**. The Principal Contractor will be responsible for submitting CAR applications to SEPA for the construction of the new crossings, as required. Following agreement, details of the applications will be appended to the final CEMP.

Runoff

Surface water runoff containing silt and other sediments, particularly during and after rainfall events, has the potential to enter the watercourses and field drains on and adjacent to the site. Silt and sediment laden surface water runoff is predicted to arise from excavations, exposed ground and any temporary stockpiles. This has the potential to temporarily impact on the water quality and hydrological and ecological function of the receiving watercourse at and downstream of the works in the absence of any mitigation.

Construction of permanent access tracks and hardstanding, and construction-phase movement of vehicles and plant, have the potential to result in soil compaction. This can lead to reduced permeability, increasing the potential for surface water runoff. Reduced permeability could also reduce the flood storage capacity within the site and could potentially lead to localised flooding incidents.

Pollutants

Spills and leaks may mobilise oils, fuels and cement, which have the potential to be carried in surface water. These pollutants could be carried into watercourses, impacting on ecological habitats and freshwater quality. Untreated foul sewage from welfare facilities during construction has the potential to discharge directly into surrounding watercourses unless appropriately managed.

8.3 Mitigation and Monitoring

Good Practice

The Principal Contractor will abide by the Guidance for Pollution Prevention (GPPs) and Pollution Prevention Guidance (SEPA and wider UK equivalents, various dates) where still relevant, including:

- GPP 2: Above ground oil storage tanks (2021);
- GPP3: Use and design of oil separators in surface water drainage systems (2022);

- GPP 4: Treatment and disposal of wastewater where there is no connection to the public foul sewer (2021);
- GPP5: Works and maintenance in or near water (2018);
- PPG6: Working at construction and demolition sites (2014); and
- GPP13: Vehicle washing and cleaning (2021).

The Principal Contractor will abide by all CAR requirements (including the requirement to implement construction specific SuDS where required) and follow the guidance provided in Good Practice during Wind Farm Construction 4th Edition (NatureScot, 2019).

Monitoring

Pre-construction Monitoring

A programme of pre-construction surface water monitoring will be implemented, covering a period suitable to gather baseline data across more than one season (i.e. typically at least six months). Baseline monitoring will involve observations of site conditions, and sampling at specified sample locations on the main watercourses on-site, including locations upstream and downstream of proposed construction works.

Indicatively, the monitoring programme will include testing samples for the following parameters, to be confirmed in a detailed WQMP and agreed with AC and relevant consultees prior to commencement of the programme:

- colour;
- pH;
- alkalinity;
- electrical conductivity;
- total suspended solids;
- nitrate;
- total oxidised nitrogen (TON);
- phosphate;
- sulphate;
- dissolved organic carbon (DOC);
- total organic carbon (TOC);
- biochemical oxygen demand (BOD);
- dissolved oxygen (DO);
- turbidity;
- aluminium;
- iron;
- ammoniacal nitrogen;
- manganese; and
- total petroleum hydrocarbons (TPH).

Construction Monitoring

Water quality monitoring will be undertaken monthly during the construction phase, by the Principal Contractor. The Principal Contractor will appoint a member of staff who is appropriately trained in water quality monitoring.

Regular (e.g. daily/weekly) inspections of watercourses close to construction activities will be undertaken by the Principal Contractor to identify:

- pollution risks that are unacceptably high;
- spillages or leakages;
- non-compliance with this CEMP;
- monitoring of over-pumping arrangements if required; and
- incidences of pollution.

The Principal Contractor will be responsible for recording the results of the regular inspections, recommending appropriate actions, and monitoring the implementation and outcome of such actions.

The Principal Contractor will be responsible for reporting to the Applicant if there are unacceptable alterations to the baseline. The Principal Contractor will be responsible for determining the cause of the alteration and implementing appropriate mitigation or changes to practices, to reduce/remove this change, if caused by construction activities.

Details of operational water quality monitoring will be provided within the Operational Environmental Management Plan (OEMP).

8.4 Watercourse Crossings

All watercourse crossings will be subject to detailed design in accordance with CAR. The detailed design for the watercourse crossings, and the requirements for CAR authorisations or licences will be agreed with SEPA prior to construction in order to ensure that impacts on fluvial geomorphology are minimised and acceptable to SEPA.

8.5 Drainage and Runoff

Operational Drainage Design

A framework for provision of suitable drainage for the development is provided in EIA Report **Chapter 10**. The detailed design of the development will be incorporate this outline framework and will provide specific, detailed drainage arrangements. The detailed design of the drainage systems will be agreed with AC and SEPA prior to construction.

Construction Drainage

All works associated with earth movement or similar processes will be carried out in accordance with the BSI Code of Practice for Earth Works BS6031:2009.

Due to the location of the site, there is a high likelihood of rainfall throughout the year. Site management will check the local weather forecast daily and ensure all staff are aware, in order to maintain pollution control and runoff in periods of rainfall.

If working platforms are required, they will be formed in such a way that surface water drains away from watercourses.

Temporary drainage systems will be used to alleviate localised flood risk and prevent the obstruction of surface runoff pathways. Where required, temporary attenuation ponds will be provided to reduce silted run-off from the access tracks entering watercourses. If flocculants are considered necessary to aid settlement of fine suspended solids such as clay particles, the chemicals used must first be approved by SEPA.

The requirement for dewatering will be minimised in all locations by the timely and efficient excavation of the foundation void and subsequent concrete pouring and backfilling.

Access tracks will be kept to the shortest length possible, and tracks will be designed to spread the load of plant and vehicles to minimise soil compaction and therefore potentially reduce surface water runoff.

To avoid unnecessary compaction and disturbance to site soils, working areas and corridors will be established and demarcated, with construction operatives appropriately inducted and trained to avoid work outside the designated work areas.

8.6 Pollution Prevention

Spill kits will be kept in all vehicles, and soakage pads and oil booms maintained in all work areas. This will enable the rapid and effective response to accidental spillages. All construction staff will be trained in equipment use.

All vehicle maintenance, fuelling and washing will be undertaken on appropriate impermeable surfaces away from watercourses in order to minimise the risk of leaks so to soil and surface waters. All construction and plant vehicles will be regularly maintained.

The Principal Contractor will develop a specific method statement to address the transport, transfer, handling and pouring of liquid concrete at foundations.

All operations involving concrete transfer between vehicles, or into vehicles will take place at least 30 m from watercourses or water bodies to ensure cement, unset concrete and grout to not enter the water environment.

Concrete wash out will be within the construction compound. The Principal Contractor will ensure that this area is regularly cleaned, and the waste disposed. Concrete and wash out liquid will not be discharged into drains or watercourses on site or at compounds. Drainage

will be collected and treated or removed to an appropriate treatment point or licensed disposal site.

8.7 Storage of Fuel/Chemicals

Stationary oil storage tanks, if required on-site, will be located above the 0.5% Annual Exceedance Probability (AEP) (1 in 200 year return period) flood level. Plant and material will be stored in safe areas above the 0.5% AEP flood level where practicable, and temporary construction works will aim to be resistant to flood impacts in order to prevent movement or damage during potential flooding events.

To mitigate potential pollution from chemical-contaminated runoff, all fuels and chemicals will be stored in accordance with best practice procedures. This will include a designated fuelling site at a safe distance from watercourses, and in appropriate impermeable bunded containers or areas. These containers/areas will be designed to capture any leakages, from a tank or associated equipment.

8.8 Untreated Foul Drainage

The welfare facilities will connect to a septic tank (subject to CAR authorisation if applicable) or self-contained storage tanks. The tanks will be emptied and maintained on a regular basis by a suitably licensed contractor.

9 Outline Waste Management Plan

9.1 Introduction

The Site Waste Management Plan for the Development will detail the practices to be put in place to ensure the control of waste on site, in a manner that is not detrimental to the local and wider environment. This encompasses the minimisation of waste and the removal of waste from site where necessary.

The Site Waste Management Plan will identify ways of minimising waste and maximising reuse and recycling of materials, as well as the responsibilities of the Principal Contractor, subcontractors and site team to ensure the Site Waste Management Plan is upheld.

The details of the waste disposal locations and recycling options will be confirmed following the appointment of the Principal Contractor and this outline Site Waste Management Plan will be updated accordingly.

9.2 Benefits

The following benefits will result from the Site Waste Management Plan:

- A reduction in waste being sent to landfill with benefits to the environment;
- A reduction in material purchase, disposal and landfill costs;
- A reduction in vehicle movements on site and in the local area; and
- The introduction of 'best environmental practice' across the Development site to reduce the impact on local communities.

9.3 Legislation

All waste will be appropriately disposed of at licensed tips and designated sites. The Principal Contractor will abide by relevant legislation including the Control of Pollution Act 1974 and Section 34 of the Environmental Protection Act 1990.

The storage, management and handling of waste will aim to limit impacts and avoid nuisance arising from dust and odour in accordance with the requirements set out.

Any necessary waste management licenses or exemption waste management licences will be obtained from SEPA prior to construction and the CEMP will be updated to include or refer to these.

9.4 Strategy for Waste Reduction

The Principal Contractor will employ the following strategy to achieve maximum reuse and reduce of landfill waste:

- Sub-contractors will be contractually obliged to cooperate with the Site Waste Management Plan as part of their tender.
- Regular progress meetings will be undertaken between the Principal Contractor and their sub-contractors to discuss waste disposal and recycling opportunities.
- All staff will be encouraged to engage in site inductions and environmental awareness campaigns.
- Waste management will be incorporated into the design process, including planning for high volumes of waste, consideration of suitable manufacturers and appropriate storage measures.
- The Principal Contractor will identify and segregate waste streams.
- The Principal Contractor will reuse and recycle where possible.
- The Principal Contractor will use suitable storage methods for all materials.
- Unauthorised waste disposal will be treated as an environmental incident and the Pollution Incidence Response (refer to **Section 5**) will be implemented. Under no circumstances will waste material be burned or buried on the Development site.

Elimination

In the first instance the Proposed Development will aim to avoid the creation of waste. This will be done early in the detailed design stages of the Development and will have the most significance when reducing waste.

Construction off-site wherever possible will promote the efficient use of materials and reduces the need to store excess or materials not in use. Optimisation and specification of materials will occur at the design stage to standardise the components and ensure low wastage rates.

Reduction

The Principal Contractor will undertake accurate measurement and ordering of required materials, with no factoring for waste to reduce the volume of waste generated during construction. Efficient ordering of materials, such as standardised sizes to reduce onsite cutting, as well as delivery on a just-in-time basis will reduce onsite storage time.

The control of design will also reduce the risk of late-stage changes which would require rework and therefore reduce overall waste.

The Principal Contractor will ensure the effective and appropriate storage of materials to protect against damage and adverse weather conditions. Ensure suppliers have a take-back option for packaging and surplus, as well as good communication to reduce the amount of packaging included in deliveries.

The Principal Contractor will ensure the use of enclosed containers to store waste susceptible to spreading by wind or liable to cause litter. General waste will be removed at frequent intervals and the site kept clean and tidy.

Re-Use

Rubble and concrete can be used as backfill, subsoil in landscaping areas and timber offcuts as temporary form work.

Where possible the Principal Contractor will purchase reclaimed or recycled materials or procure materials from sustainable sources.

Recycling

The Principal Contractor will designate areas or containers for materials such as plastics, timber, steel, general waste, dry recyclables, batteries, aerosols, etc. which can be recycled.

9.5 Development Waste Management Specifics

Waste Storage

All waste will be stored in appropriate designated and labelled containers. These will be covered as necessary to prevent the ingress of water and the escaping of waste, and will be fit for purpose to prevent leaks and spills. The waste streams will not be combined for disposal. Waste will only be disposed of at certified facilities for each type of waste.

It is anticipated that the construction of the Development will give rise to the following types of waste:

- wood (e.g. fence posts, hoarding);
- domestic (e.g. glass, paper, cardboard, plastics, food, sewage);
- metal (e.g. wire, steel);
- hazardous (e.g. paint, oil, aerosols, batteries); and
- aggregates (e.g. concrete, stone).

Records

The following records will be kept by the Principal Contractor at the Development site during construction:

- Copies of all relevant permits/licences for both carriers and disposal sites;
- Contact details for all waste carriers and disposal sites;
- Vehicle registration numbers for all waste carriers and routes travelled to and from the Development site to the waste disposal site;
- Audit reports;
- Recycling receipts (for non-hazardous waste);
- C1 forms (for hazardous waste);
- Trans-frontier shipment documents (for hazardous waste); and
- Description of all waste removed from site including volume and consignment route number.

Monitoring

The Principal Contractor will implement a weekly monitoring programme to ensure the correct storage, transfer and disposal of waste, which will be audited monthly by the Developer's ECoW.

As part of the site induction, all staff will be taught the correct disposal methods for waste, including the location of the waste disposal containers, the correct packaging of waste (if appropriate) and what to do should waste be discovered on site.

Prior to construction the Principal Contractor will visit the waste disposal sites to ensure they are appropriately managed. The Principal Contractor will monitor all waste carriers arriving and leaving the site to ensure that they are fit for purpose and will undertake ad hoc monitoring of the waste carriers in transit.

The Principal Contractor will undertake daily monitoring of the waste storage containers to ensure waste is being disposed of correctly, and if required provide additional training on the disposal of waste.

The Principal Contractor will create a Waste Management Register. This will state the anticipated waste volumes for each waste type, against the created waste volumes.

10 Outline Archaeology Management Plan

A detailed Archaeology Management Plan including the following mitigation measures will be implemented.

Written Scheme of Investigation (WSI) will be prepared and submitted to the planning authority for approval prior to any construction works (including enabling works) commencing on-site. The scope of works outlined in the WSI will be implemented during the construction phase.

An archaeological contractor will be appointed, who will act as an Archaeological Clerk of Works (ACoW) to advise on and oversee relevant aspects of the construction phase archaeological mitigation work.

Heritage assets within 50 m of the proposed working areas, including all areas to be used by construction vehicles, will be fenced off where appropriate, under supervision from the ACoW, prior to construction. This fencing will be maintained throughout the construction period to ensure the preservation of these assets.

Archaeological works, such as a watching brief and paleoenvironmental sampling, will be implemented where intensive works will cause substantial peat disturbance. The exact scope and method of the archaeological works will be outlined in the WSI and agreed with MC prior to construction work being undertaken.

11 Conclusion

The purpose of this CEMP is to ensure that all construction activities carried out at the Proposed Development are in a manner which minimises impact on the environment. This document has been produced to remind individuals working on the site of their responsibilities and to ensure that measures to prevent, reduce or mitigate potentially adverse environmental impacts identified in the EIA and this CEMP are carried out.

The CEMP has been developed to advise of good construction practices and ensure they are adopted and maintained throughout the construction of the Proposed Development. As part of this, a framework for mitigating unexpected impacts during construction has been developed and is detailed within this CEMP.

The CEMP has been prepared to provide assurance to third parties that their requirements and expectations with respect to environmental performance are met, whilst providing a mechanism for ensuring compliance with current environmental legislation and statutory consents.

References

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