Mossy Hill Wind Farm Substation

Supplementary Environmental Information Report

Appendix 2 – Outline Construction Environmental Management Plan

Technical Appendix 2:
Outline Construction Environmental Management Plan

Contents

Introduction

Purpose of the Document

This document is the Outline Construction Environmental Management Plan (oCEMP) for the proposed installation of a new substation development (the Proposed Development) to connect the consented Mossy Hill Wind Farm to new electricity grid infrastructure that SSEN are installing through the Site from Kergord to Gremista. It outlines best practice methods for managing and controlling the Proposed Development's environmental impacts, including mitigation and monitoring, during construction. The oCEMP has been prepared on the behalf of Mossy Hill Shetland Limited (the Applicant), a wholly owned subsidiary of Statkraft UK Limited (Statkraft).

The oCEMP will be updated and finalised post-consent (thereby becoming a CEMP) in line with all relevant planning conditions in agreement with Shetland Islands Council (SIC), 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 mandatory induction process for all construction 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 includes information about the associated Management Plans which form the latter part of this document and 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;
- Construction Traffic Management Plan.

Aims and Objectives

The purpose of this oCEMP is to provide an overview of the potential environmental impacts of the Proposed Development during its construction phase, and describe the management and mitigation measures that will be implemented to minimise impacts and to protect the environment and sensitive receptors both on-Site and off-Site. As noted above, the measures set out in this oCEMP 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 Supporting Environmental Information Report (SEIR) are carried out.

The objective of this oCEMP is 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 Section 13 of the SEIR for a summary of mitigation);
- 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 oCEMP 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 planning conditions imposed by SIC, changes introduced by the Applicant's construction team, Site-specific outcomes, non-conformances and recommendations arising out of inspections, meetings and audits.

Roles and Responsibilities

As the Proposed Development is at the application stage, the oCEMP 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 SEIR.

The oCEMP takes account of and refers to information contained within the SEIR.

The oCEMP 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 oCEMP 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 oCEMP (including procedures, record keeping, monitoring and auditing) will be overseen by an Ecological 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.

Project Status

As the Proposed Development has not yet been consented, some of the information provided in this oCEMP is necessarily general in nature.

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

Document Control

As noted, the oCEMP (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	November 2024	ITPEnergised	Outline CEMP

Table 1.2: Distribution List

Organisation	Contact Name	Email	Telephone Number
Applicant - Mossy Hill Shetland Limited	TBC	TBC	TBC
Principal Contractor	TBC	TBC	TBC
Environmental Clerk of Works (ECoW)	TBC	TBC	TBC
Archaeological Clerk of Works (ACoW)	TBC	TBC	TBC
Shetland Islands Council	TBC	TBC	TBC
SEPA	TBC	TBC	TBC
NatureScot	TBC	TBC	TBC
Historic Environment Scotland	TBC	TBC	TBC

Outline Construction Methodology

Introduction and Project Description

The Proposed Development site ('the Site') is located approximately 600 metres (m) west of the western extent of Lerwick, centred at British National Grid (BNG) reference HU 44549 42610 in the SIC area.

The Site is approximately 25.8 hectares (ha) in area, and predominantly comprises rough grazing, acid grassland and blanket bog. Elevation rises from approximately 100 m Above Ordnance Datum (AOD) in the north of the Site to approximately 140 m AOD in the south of the Site.

The Site is in a rural setting and is surrounded predominantly by agricultural ground for livestock grazing and industrial developments such as the adjacent quarry, Lerwick Brewery, and Staney Hill Industrial Estate. There is a small historic landfill site within the Site boundary. The Site is within the boundary of the consented Mossy Hill Wind Farm and one of the consented wind farm substations and construction compounds are within the Site boundary. Access to the Site will be gained via the A970 or Ladies Drive via the consented wind farm access junctions.

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:

- construction of Statkraft substation and ancillary buildings;
- construction of SSEN substation and ancillary buildings;
- establishment of the temporary construction compound(s);

- construction of Site tracks, including construction of drainage, and excavation of cable trenches;
- construction of hardstanding areas;
- cable laying;
- connection of power, earthing and communication cables;
- commissioning of the Site equipment;
- Site reinstatement and restoration of temporary works areas;
- construction of security fencing and gates; and
- habitat restoration, enhancement and management works.

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 activities likely to be audible beyond the Site boundary:

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

Construction hours will be agreed through consultation with SIC.

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. This is particularly relevant to ground works, road and hardstanding construction (weather dependent).These operations will not generate particularly excessive noise at any noise sensitive locations.

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

Construction Programme

Construction is provisionally expected to commence in Q3 2025 and last for around 42 months (refer to **Table 1**). The start date for the commencement of construction will be confirmed at a later date. A detailed construction programme will be provided prior to commencement of works.

Table 1 Indicative Construction Programme

Task	2025		2026				2027				2028				2029	
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Mobilisation																
Access																
Create Platform																
Site Drainage																
Handover SSEN area																
SSEN Substation build																
Statkraft Substation build																
Commissioning and Testing																
Site Reinstatement																

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 Applicant (supported by the Principal Contractor) 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.

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 SIC, NatureScot, SEPA, Historic Environment Scotland (HES), Scottish Water, relevant landowners, crofters and graziers, the Local Roads Authority and the Health and Safety Executive (HSE).

Site Compound

The Principal Contractor will establish temporary construction compounds 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 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. A Construction Traffic Management Plan (CTMP) will be developed as part of the CEMP and agreed with SIC 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 compound(s) is minimised where possible;
- the compound(s) will segregate vehicle and pedestrian movements;
- adequate, clean welfare facilities will be provide for all staff;
- all working areas will be kept in a clean and tidy condition;
- if lighting is required, it will be designed to minimised 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.

Site Works

Access Tracks

Access to the Site will be gained via the A970 or Ladies Drive via the consented wind farm access junctions.

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 5 m, with local widening on bends, and at junctions. A construction thickness of approximately [thickness to be confirmed during detailed design] 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, topsoil and peat 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.

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. 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 (which is considered appropriate guidance for the construction of these access tracks which are proposed to also provide access to the Mossy Hill wind farm).

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 substation 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.

Aggregates and ready mix concrete will be sourced locally, and where possible/available from the adjacent Staney Hill Quarry, immediately to the south of the Proposed Development on Ladies Drive.

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.

Maintenance

During construction, the access tracks will be subject to regular heavy plant movements and as a result may deteriorate, develop potholes 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 construction. Following completion of construction works and when most of the heavy plant has left the Site, the Principal Contractor shall undertake final restoration works.

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; and
- there are significant changes in environmental conditions, e.g. heavy rainfall.

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

Outline Ecology Management Plan

General Best Practice

General mitigation measures that will apply during construction and operation phases are outlined below:

- 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 as 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 16 weeks prior to construction, the ECoW or other suitably qualified ecologist (SQE) will undertake a preconstruction protected species survey to supplement and update the baseline survey information contained within the SEI 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;
- all vehicles will be restricted to 5 miles per hour (mph) whilst within the Site;

- adherence to SEPA Guidance for Pollution Prevention (GPP) in respect to working in and around watercourses;
- 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;
- 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.

Habitats

Habitat Management Plan

A Habitat Management Plan (HMP) will be implemented throughout the site to increase the quality of the remaining habitat and as a result improve the biodiversity of the Site. A draft HMP is provided in **Appendix 5** of the SEIR.

In order to facilitate restoration, disturbed ground will be restored as soon as practically possible using materials removed during the construction of access tracks and excavation of cable trenches. To achieve this, any excavated soil will be stored in such a manner that is suitable to facilitate retention of the seed bank. This will aid site restoration and help conserve the pre-construction floristic interest at the Site. Access tracks will be allowed to re-seed naturally during operation.

Potential Groundwater Dependent Terrestrial Ecosystems

Professional judgement and reference to the Scottish Natural Heritage (SNH) Practice Guide (SNH, 2017) and the UK Forestry Standard 4th Edition (Forestry Commission, 2017) will be used to inform protection measures for Groundwater Dependent Terrestrial Ecosystems (GWDTE) and other sensitive habitats and will include protection of acid/neutral flush habitats to the north of the site. Additional mitigation includes:

- any features requiring excavation to greater than 0.5 m, such as tracks, and drainage, will be sited away from potential GWDTE features;
- where a potential GWDTE lies within 100 m of a track, its construction will incorporate culverts or a permeable base, as appropriate to maintain hydrological connectivity; and
- under-drainage will be avoided, and the effects of drains will be carefully considered to avoid dewatering, especially of the alkaline flushes.

Birds

A Bird Protection Plan (BPP), to be devised in consultation with NatureScot will be in place prior to the onset of construction activities. The BPP will describe survey methods for the identification of sites used by protected birds and will detail protocols for the prevention, or minimisation, of disturbance to birds as a result of activities associated with the Proposed Development. The BPP will be overseen by the ECoW.

The BPP will describe surveys to locate the nests or other key sites (e.g., roosts) of birds listed in Schedules 1 and 1A of the Wildlife and Countryside Act 1981, in advance of construction works progressing within the Site. In the event that an active nest or roost of a Schedule 1 or Schedule 1A

species is discovered within distances given by Whitfield et al. (2008) (or within a 500 m radius of the nest for Schedule 1 species not listed), a disturbance risk assessment will be prepared under the BPP and any measures considered necessary to safeguard the breeding attempt or roost (e.g., exclusion zones or restrictions on timing of works), would be submitted to NatureScot for agreement before recommencing work.

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 or compounds due to the populations of ground nesting birds on and around the Site.

However, should the construction of the Proposed Development need to take place during the breeding bird season, an SQE will be employed to search the Site for evidence of nesting birds immediately prior to works, with a pre-check undertaken for any works delayed longer than 48 hours. Should a nest be recorded, a suitable working buffer will be put in place until young have successfully fledged the nest.

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

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.

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, red squirrel, otter, water vole, amphibians and reptiles. This will include the following mitigation:

- details of the pre-works checks and buffers in place prior to and during the construction;
- access ramps to be installed each night within any open trench or pit to prevent entrapment of otter and other animals;
- daily checks of any excavations to be made prior to commencing work to ensure that no mammals have become trapped in the excavations. Should a trapped animal be found, a suitably experienced ecologist will be immediately contacted for advice;
- any pipes with a diameter of greater than 200 mm which are stored or installed on site must be covered or capped at night to reduce the risk of animals becoming trapped inside;
- any animals disturbed by site works will be allowed to disperse of their own accord and will not be caught or handled.

Outline Pollution Prevention Plan

This outline Pollution Prevention Plan (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.

Legislation and 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).

Contacts

The following contacts within **Table 4.1** should be contacted in case of an emergency by any member of staff:

Table 4.1: Emergency Contacts

Contact	Office Hours	Out of Hours	Address
Fire Brigade	01595 692318	999	Electricity Sub Station 5 metres from Highlands & Islands Fire & Rescue Service Sea Road Lerwick ZE1 0RJ
Police	01786 289070	999	Lerwick Police Station Market Street Lerwick ZE1 0JN
Ambulance/Hospital	01595 743000	999	Gilbert Bain Hospital (A&E) (Shetland Islands) South Road Lerwick ZE1 0TB
Community Automated External Defibrillator (AED)	N/A	N/A	SAC Consulting Lerwick

The following staff in **Table 4.2** should be contacted following any pollution incidence by the Site operation staff:

Table 4.2: 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 4.3** should only be contacted by the Applicant's ECoW or the Principal Contractor's Site Manager as required following a pollution incidence:

Table 4.3: 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
Water Management Contractor	TBC	TBC	TBC
Specialist Clean Up	TBC	TBC	TBC

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 4.4** will be continually updated throughout the construction period when potential pollutants are identified.

Table 4.4: Site Chemical, Product and Waste Inventory

Chemical/Product/Waste	State	Maximum volume on Site	Location	Contaminant	Risk
Diesel	Liquid	TBC	Within vehicles Site compound (TBC)	TBC	Flammable
Engine oil	Liquid	TBC	Within vehicles Site compound (TBC)	TBC	Flammable
Hydraulic oil	Liquid	TBC	Within vehicles Site compound (TBC)	TBC	Flammable
Cement	Powder	TBC	TBC	TBC	Irritant
	Liquid	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

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.

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 4.5.**

Table 4.5: Staff Trained in Pollution Incidence Response

Staff	Training	Date	Date of Training Update

Outline Noise and Vibration Management Plan

Overview

A Noise and Vibration Management Plan (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.

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 SIC Environmental Health Officer upon request.

Should a noise complaint be made to SIC relating to noise emission from construction of the Proposed Development, and the SIC 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 SIC prior to the noise measurements being undertaken.

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

Outline Dust and Air Pollution Management

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.

Transportation and 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.

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.

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.

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 SIC's Environmental Health Officer, if required.

Outline Water Quality Monitoring and Management Plan

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 Water Quality Monitoring and Management Plan (WQMP) outlines the key issues pertaining to the construction of the Proposed Development and the mitigation measures proposed to reduce potential effects.

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.

Migration 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).

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 SIC 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).

Drainage and Runoff

Operational Drainage Design

A framework for provision of suitable drainage for the development is provided in SEI Report Section 9. The detailed design of the development will incorporate this outline framework and will provide specific, detailed drainage arrangements. The detailed design of the drainage systems will be agreed with SIC 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.

Swales and track drains will be installed and maintained to intercept, collect and treat run-off from access tracks and hardstanding areas of the site and channel run-off to stilling ponds for sediment settling.

Appropriately sized culverts passing under the tracks will not restrict flow and allow smaller watercourses, intercepted field drains and ephemeral streams/surface water flow pathways to pass under the tracks.

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.

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.

If concrete batching is proposed onsite, specific measures will be put in place to manage run-off from these operations, which is highly alkaline and can cause pollution if it gets into watercourses. Good practice described in SEPA wat-sg-75 guidance will be followed to isolate, collect, reuse and dispose of run-off from concrete operations. 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. Concrete wash water and waste will be sent off-site to a licensed facility for treatment and/or disposal, in accordance with the Duty of Care for Waste.

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.

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.

Outline Site Waste Management Plan

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.

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 Site to reduce the impact on local communities.

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.

Strategy for Waste Reduction

The Principal Contractor will employ the following strategy to achieve maximum reuse and reduce 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 4) 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 Proposed 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 on-Site 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.

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 Proposed 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 Proposed 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.

Outline Archaeology Management Plan

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

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, such as a watching brief during ground-breaking activities.

While the Proposed Development has been designed to minimise disturbance to areas of deep peat, the proposed access track will intersect an area of deep peat. If significant groundworks are necessary to construct the track, a paleoenvironmental sampling strategy may need to be implemented to assess and characterise any surviving paleoenvironmental remains within the deeper peat layers.

Mitigation measures will be developed in consultation with the Shetland Amenity Trust (SAT) through a Written Scheme of Investigation (WSI). If significant archaeological features are discovered, further actions may include detailed excavation and a comprehensive programme of post-excavation analysis.

Outline Construction Traffic Management Plan

Prior to construction, a final CTMP will be prepared to provide details of access junctions, routing plans, and safety measures identifies the traffic management measures required to turn the Proposed Development. The measures which will be identified will relate to:

- traffic management;
- abnormal loads;
- access;
- construction traffic movements;
- road signage; and
- cable crossings.

Generic measures will be discussed with SIC and Transport Scotland and may include:

- contractual requirement in the Balance of Plant (BoP) contract that contractors will only use the agreed access route;
- direction signage signposting traffic on the agreed access route;
- identification numbers of HGV and vans to allow easy recognition;
- providing the public with details of how to report use of unapproved routes or driving issues of concern;
- using GPS trackers to allow the monitoring of bulk delivery vehicle movements;
- setting out site staff disciplinary measures for those who ignore the agreed access route and enforcing these throughout the construction period;
- all site vehicles will feature “white noise” reversing warning devices to reduce noise disruption when on site;
- all materials delivery lorries (dry materials) will be sheeted to reduce dust and stop spillage on public roads;
- specific training and disciplinary measures will be established to ensure the highest standards are maintained to prevent construction vehicles from carrying mud and debris onto the carriageway;
- wheel cleaning facilities will be established at the site entrances. A road sweeper would also be provided at site to ensure that the road section in the vicinity of the access junctions are kept clean; and
- site induction for all staff instructing them on what route to site they can use to enter and exit the Site and obtaining their acknowledgement that there is only one approved access route. The induction would include:
- a tool box talk safety briefing;
- the need for appropriate care and speed control; and
- a briefing on driver speed reduction agreements (to slow site traffic at sensitive locations through Lerwick and other sensitive areas).

Prior to the commencement of the works a full CTMP will be produced in consultation with SIC and Transport Scotland

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 SEI Report 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

British Standards Institute (2009). BS 6031:2009 – Code of Practice for Earthworks.

British Standards Institute (2014). BS 5228-1:2009+A1:2014 – Code of Practice for Noise and Vibration Control on Construction and Open Sites.

CIRIA (2010). Culvert Design and Operation Guide - Report C689F. Available at: https://www.ciria.org/CIRIA/CIRIA/Item_Detail.aspx?iProductCode=C689F&Category=FREEPUBS

Forestry Commission. (2017). The UK Forestry Standard: The Government's Approach to Sustainable Forestry. Available at: https://assets.publishing.service.gov.uk/media/651670336a423b0014f4c5c0/Revised_UK_Forestry_Standard_-_effective_October_2024.pdf

NatureScot (2019). Good Practice during Wind Farm Construction. Available at: https://www.nature.scot/doc/guidance-good-practice-during-wind-farm-construction

NetRegs (various dates). Guidance for Pollution Prevention. Available at: http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppg-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/

Scottish Government (2011). The Water Environment (Controlled Activities) (Scotland) Regulations 2011. Available at: https://www.legislation.gov.uk/ssi/2011/209/contents/made

Scottish Government (2009). Environmental Liability (Scotland) Regulations 2009. Available at: http://www.legislation.gov.uk/ssi/2009/266/contents/made

SEPA (2010). SEPA Position Statement WAT-SG-25: Engineering in the Water Environment Good Practice Guide - River Crossings. Available at: https://www.sepa.org.uk/media/151036/wat-sg-25.pdf

SEPA (2015). SEPA Position Statement WAT-PS-06-02: Culverting of Watercourses Position Statement and Supporting Guidance v2. Available at: https://www.sepa.org.uk/media/150919/wat_ps_06_02.pdf

SEPA (2021). Supporting Guidance (WAT-SG-75) Sector Specific Guidance: Water Run-Off from Construction Sites. Available at: https://www.sepa.org.uk/media/340359/wat-sg-75.pdf

SEPA (2022). The Water Environment (Controlled Activities) (Scotland) Regulations – A Practical Guide. Available at: https://www.sepa.org.uk/media/34761/car_a_practical_guide.pdf

SNH (2015). Constructed tracks in the Scottish Uplands. Available at: https://web.archive.org/web/20221020132020/https://www.nature.scot/sites/default/files/2022-09/final%20-%20Publication%202015%20-%20Constructed%20tracks%20in%20the%20Scottish%20Uplands.pdf

SNH (2017). Recommended Bird Survey Methods to inform Impact Assessment of Onshore Wind Farms. Available at: https://www.nature.scot/doc/recommended-bird-survey-methods-inform-impact-assessment-onshore-windfarms

UK Government (1974). Control of Pollution Act 1974. Available at: http://www.legislation.gov.uk/ukpga/1974/40/contents

UK Government (1981). Wildlife and Countryside Act 1981. Available at: https://www.legislation.gov.uk/ukpga/1981/69/contents

UK Government (1990). Environmental Protection Act 1990. Available at: https://www.legislation.gov.uk/ukpga/1990/43/contents

UK Government (1995). The Environment Act 1995. Available at: https://www.legislation.gov.uk/ukpga/1995/25/contents

UK Government (2002). Control of Substances Hazardous to Health Regulation 2002. Available at: http://www.legislation.gov.uk/uksi/2002/2677/regulation/7/made

UK Government (2005). Clean Neighbourhoods and Environment Act 2005. Available at: http://www.legislation.gov.uk/ukpga/2005/16/contents

UK Government (2015). The Construction (Design and Management) Regulations 2015. Available at: https://www.legislation.gov.uk/uksi/2015/51/contents/made

Whitfield, D.P., Ruddock, M. and Bullman, R. (2008). Expert opinion as a tool for quantifying bird tolerance to human disturbance. Biological Conservation, 141(11), pp.2708-2717.