OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (OCEMP)

RNLI Access Ramp, Largs, North Ayrshire

Scottish Environment Agency (SEPA) Pollution Hotline Number 0800 80 70 60

1 Introduction

1.1 Purpose of this Document

This document is an Outline Construction and Environmental Management Plan (OCEMP) and contains all the appropriate environmental mitigation and management techniques to help ensure no significant impacts are caused to the environment during the construction phase of the Proposed Development. It is a 'live' document and may be updated as the project progresses. This OCEMP sets out the minimum requirements which will be adhered to during the construction phase of the Proposed Development.

1.2 The Proposed Works

The proposed development site is located at the RNLI Lifeboat Station in the coastal town of Largs, which is located due west of Glasgow, within North Ayrshire Council area. The proposed development involves the construction of a new access ramp from the promenade onto the head of the beach to provide access for the launch and recovery of the lifeboat.

The lifeboat is presently launched using the adjacent North Ayrshire Council public slipway however the surface of this slipway is in a poor condition and susceptible to severe marine growth which presents a significant hazard to the volunteer lifeboat crew.

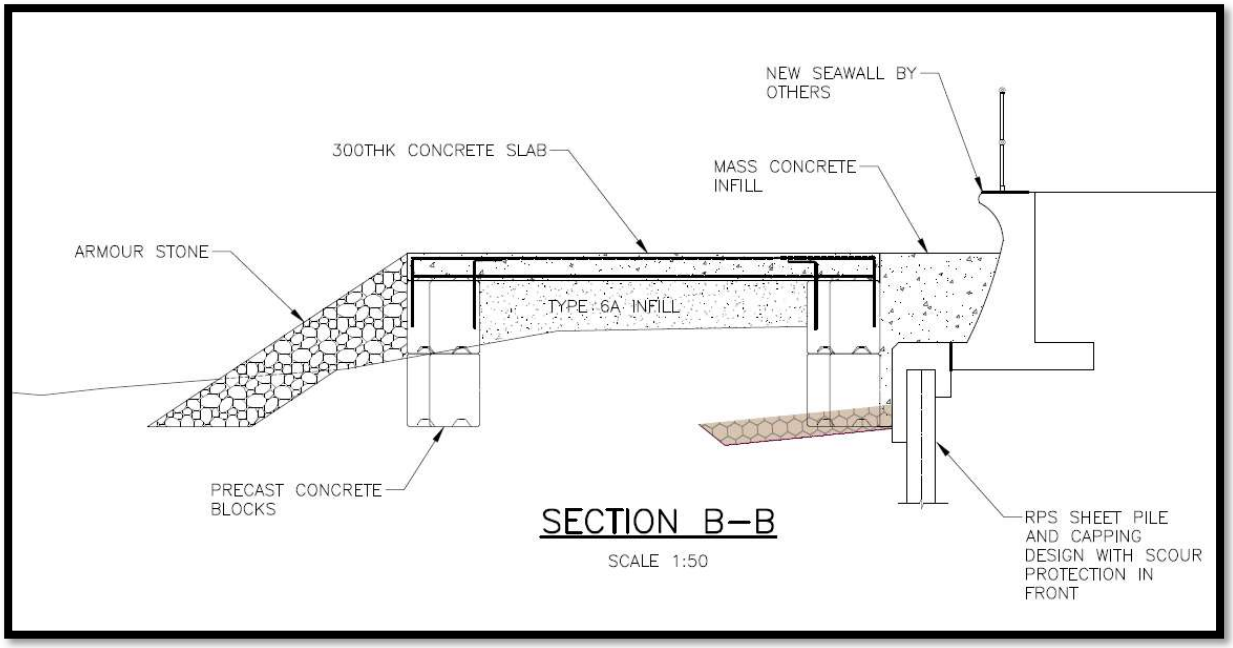
The location is shown on the image below.

1.3 Key Components of the Proposed Works

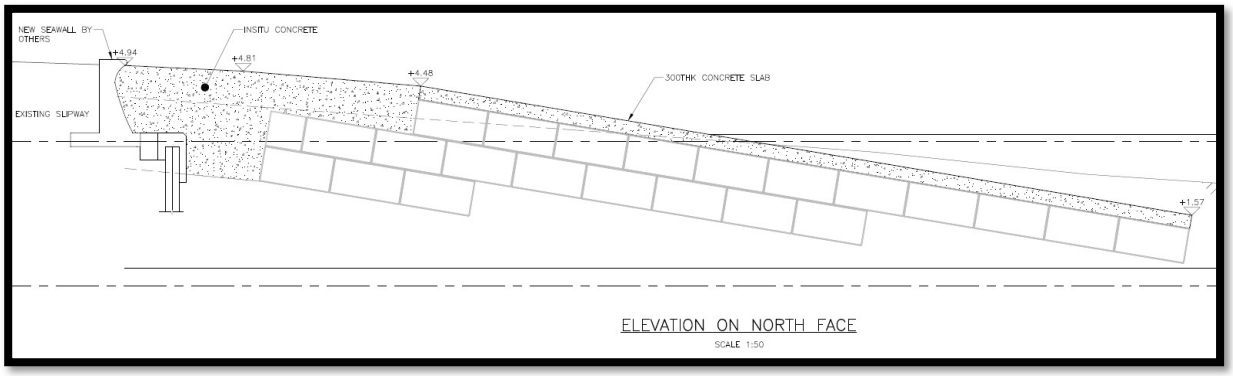
The proposed access ramp will provide access from the promenade at a level of +4.81mCD onto the beach at a gradient of 1 in 6 to a toe level of +1.57mCD. The ramp has been designed to tie in with the new North Ayrshire Council Sea Wall which is currently under construction.

The proposed access ramp works consist of the following main elements;

- Installation of pre-cast concrete blocks to form side walls and toe of ramp.
- Placement of type 6A infill material to bring ramp up to formation level.
- Fixing of steel reinforcement and insitu pour of 300mm thick slab to form surface of ramp.
- Insitu concrete pour to fill void between new North Ayrshire Council Sea Wall and new ramp.
- Placement of rock armour scour protection in-front of the new ramp to prevent undermining of the walls of the new structure.



Typical section of proposed ramp



Elevation of North face of proposed ramp

2 Defining the OCEMP

2.1 Purpose of the OCEMP

An OCEMP is a key tool for delivering environmental management during the construction phase. It sets out the mechanisms by which the various construction activities would be managed to comply with the relevant environmental legislation and best practice to minimise the impacts and effects on human receptors and environmental receptors. It provides the framework for recording environmental risks and also defines the measures required to mitigate and monitor construction effects, including the mitigation measures set out in the associated supporting environmental documents and assessments. It also outlines provisions for auditing and reporting and sets out action to be taken to resolve any corrective actions arising during the course of construction. The purpose of the OCEMP is to:

1. record environmental risks and identify how they would be managed during the construction period;
2. provide a means of identifying environmental commitments, objectives and targets;
3. provide a means of monitoring and reporting performance against the objectives and targets;
4. provide a framework to ensure that all parties are aware of their responsibilities;
5. establish a checklist of control procedures which can then be integrated into an overall environmental management protocol;
6. describe how construction activities would be undertaken and managed in accordance with the obligations of environmental legislation and policy, and the requirements of environmental regulatory authorities;
7. provide detailed environmental mitigation measures for reducing the potential for environmental impacts during pre-construction and construction;
8. highlights that some activities may require consents or licences;
9. act as a link and main document reference for environmental issues between the design, and construction stages; and,
10. ensure the mitigation requirements of the associated environmental assessments (contained in supporting environmental documents for the planning application) are met.

The Contractor is required to develop and implement a CEMP to help ensure that construction activities are planned and managed in accordance with the environmental requirements. The contractor will use this OCEMP as the template for their own individual CEMP.

2.2 Scope of the OCEMP

The scope of the OCEMP covers all environmental effects related to the construction of the Proposed Development. The term ‘construction’ in the OCEMP includes all site preparation, earthworks, waste removal and related engineering and construction activities as authorised by the local authority and associated permissions.

The OCEMP will document the Contractor’s plans to ensure compliance with their legal and contractual obligations as well as implement best practice in construction environmental management. The OCEMP will be applicable to all works associated with the Proposed Development including those carried out by sub-contractors.

3 ROLES AND RESPONSIBILITIES

3.1 Introduction

The Project Manager would have overall responsibility for the construction of the Proposed Development. A full-time Environmental Manager would be responsible for developing the OCEMP and implementing the CEMP (and its various potential iterations as it is a 'live' document) during construction.

Other members of the project team would be assigned specific roles to assist the Project Manager in the implementation of the OCEMP and individual specialists would be appointed to provide expert advice. The key environmental roles and responsibilities are in the sections that follow.

The assigned environmental roles and responsibilities for the relevant project personnel are detailed in this section.

For a project like this development the Environmental Officer role maybe combined with the Site Manager role due to the size of the project and development area. All roles are still listed for completeness.

3.2 Project Manager

The Project Manager will have an overall responsibility for the organisation and execution of all related environmental activities as appropriate, in accordance with regulatory and project environmental requirements. The principal duties and responsibilities of this position will include:

1. Overall responsibility for the Proposed Development and implementation of the CEMP;
2. Allocating resources to ensure the implementation of the CEMP;
3. Participates in the management review of the CEMP for suitability, adequateness and effectiveness; and,
4. Sets the focus of environmental policy, objectives and targets for the Contractor.

3.3 Site Manager

The Site Manager is directly responsible to the Project Manager for the successful execution of the project. The principal duties and responsibilities of this position will include:

1. To report to the Project Manager on the on-going performance of the CEMP;
2. To discharge his/her responsibilities as outlined in the CEMP; and,
3. To support and augment the Environmental Officer through the provision of adequate resources and facilities in the implementation of the CEMP.

3.4 Environmental Officer

The Environmental Officer will be responsible for, but not limited to, the following activities:

1. Ensuring that the requirements of the CEMP are developed and environmental system elements (including procedures, method statements and work instructions) are implemented and adhered to with respect to environmental requirements;
2. Reviewing the environmental responsibilities of other managed Contractors in scoping their
3. work and during contract execution;
4. To ensure that advice, guidance and instruction on all CEMP matters are provided to all their managers, employees, construction contractors and visitors on site;

5. Report to the Site Manager on the environmental performance of Line Management, Supervisory Staff, Employees and Contractors;
6. Advise site management on environmental matters;
7. Maintaining environmental records;
8. Providing guidance for the site team in dealing with environmental matters, including legal and statutory requirements affecting the works;
9. Reviewing environmental management content of method statements;
10. Reporting environmental performance to the Site Manager;
11. Liaison with statutory and non-statutory bodies and third parties with an environmental interest in the Proposed Development;
12. Implementing environmental controls on site.;
13. Ensuring correct procedures are followed in the event of environmental incidents;
14. Monitoring and completing the waste register and ensuring the correct waste management procedures are implemented;
15. Implementing and maintaining environmental controls on site;
16. Attending to any spills or environmental incidents that may occur on site.

3.5 Site Supervisor

Site Supervisors are required to:

1. Promote a Health & Safety culture on site, to read, understand and implement the CEMP;
2. Know the broad requirements of the relevant law in environmental matters and take whatever action is necessary to achieve compliance;
3. Ensure that environmental matters are taken into account when considering Contractors' construction methods and materials at all stages;
4. Be aware of any potential environmental risks relating to the site, plant or materials to be used on the premises and bring these to the notice of the appropriate management;
5. Ensure plant suggested is environmentally suited to the task in hand;
6. Co-ordinate environmental planning of all construction activities to comply with environmental authorities' requirements and with minimum risk to the environment. Give Contractors precise instructions as to their responsibility to ensure correct working methods where risk of environmental damage exists;
7. Where appropriate, ensure Contractor's method statements include correct waste disposal methods;
8. Be aware of any potential environmental risks relating to the Contractors and bring these to the notice of the appropriate management; and,
9. Ensure materials/waste register is completed as appropriate.

3.6 Site Personnel

All Contractors, and other site personnel, on the project will adhere to the following principal duties and responsibilities:

1. To support and promote the Health & Safety culture on site.
2. To co-operate fully with the General Contractor and the Environmental Officer in the implementation and development of the CEMP at the site;

3. To conduct all their activities in a manner consistent with regulatory and best environmental practice;
4. To participate fully in the environmental training program and provide management with any necessary feedback to ensure effective environmental management at the site; and,
5. Adhere fully to the requirements of the site environmental rules.

3.7 Team Structure & Distribution List

All personnel working on the project will be responsible for the environmental control of their own work and will perform their duties in accordance with the requirements of the CEMP (as updated) and in compliance with the controls referenced therein.

A distribution list for the CEMP should be developed when all contact names and companies are known. The purpose of the distribution list is to establish communication channels that will enable more effective control of environmental-related issues. The distribution list should identify individuals and organizations that have received or will receive a copy of the construction stage CEMP for implementation.

Individuals of importance could include the developer, the environmental consultant, lead contractors, subcontractors, and any appointed environmental managers (or other identifiable titles for the persons in charge of implementing the contents of the construction stage CEMP).

The distribution list will be established prior to commencement of construction by the appointed contractor. Prior to commencement of construction, all roles and responsibilities should be confirmed in the CEMP as updated.

4 COMMUNICATIONS

Effective communication is essential to ensure the appropriate employment of environmental standards and relaying of information, reports/assessments and data. The following points are some of the key forms of communication required:

1. Statutory and Non-Statutory Bodies - During the construction works, communication may be required with external parties such as, statutory authorities, interest groups and the public/business owners. Communication may take the form of scheduled meetings, site visits and written correspondence.
2. As the project progresses, there may be a requirement by the client, their representatives and any appointed contractor to clarify potential issues with relevant statutory bodies – including those with an environmental remit.
3. Detailed in Table 4.1 is a basic list of statutory bodies with an environmental remit within Scotland and the local authority area who may require consultation – in particular during the construction phase of the project. Also provided is a link to their internet sites from which useful information and contact details of these organisations can be obtained.
4. This list will be reviewed by the contractor, added to or amended if required. This list therefore should not be seen as a definitive list.
5. It should also be noted that there are a wide range of non-statutory bodies within Scotland who play an active role in protecting the environment. All these organisations are not listed in this OCEMP as yet but will be if required e.g. perhaps to seek further clarification.
6. Public/businesses - The Site Manager shall ensure that the public/businesses are kept informed of operations that may have an effect upon them. This may involve letter drops and meetings to keep local commercial premises owners up to date with progress with the Proposed Development and any new operations that are to be carried out. The Site Manager will provide details of contacts within the project team for the public/businesses to contact should any issues arise;
7. Consents, Licences and Permits - The provisions for controlling, pumping and discharging water will be agreed with Scottish Water. The Contractor will ensure that any licences required are in place;
8. Changes in legislation or guidance - Legislative changes or proposed improvements to manage processes on site that have a bearing on the commitments given in the supporting environmental documents or other consultations will be communicated by the Site Manager to the Client and;
9. Meetings & Records - Environmental issues relevant to the project will be discussed during weekly Site Progress Meetings attended by the Site Manager and Environment Manager. Environmental performance will also be discussed at regular HSEQ meetings. This will include dissemination and discussion of the findings of audits, environmental reports and other inspections where appropriate.

Table 4.1: Basic list of statutory bodies with an environmental remit within Scotland

Organisation	Web Link
Scottish Environment Protection Agency (SEPA)	https://www.sepa.org.uk/
Inland Waterways Association Scotland	https://waterways.org.uk/waterways/branches/iwascotland
Marine and Fisheries	https://www.gov.scot/marine-and-fisheries/
Scottish Water	https://www.scottishwater.co.uk/
North Ayrshire Council	https://www.north-ayrshire.gov.uk

5 GENERAL POLLUTION CONTROL AND CONTINGENCY PLAN

5.1 Exclusion Zone & Materials

1. Dedicate specific areas for oil storage and refuelling, separated a minimum of 10m (exclusion zone) from any adjacent waterbodies and comply with legislation, including providing bunds sized to contain 110% of fuel storage capacity.
2. The contractor will use fill point drip trays, bunded pallets and secondary containment units.
3. The construction compound will be enclosed and secured, and fuel storage areas will be secondarily secured.
4. All fuel, oil and chemical deliveries will be supervised by a responsible person who will be trained to deal with any spillage to prevent a pollution problem occurring.
5. Storage of COSHH items is not permitted and only brought to site as required, fuel is provided by client from an existing bunded static supply, where small portable machines are to be fuelled up a drip tray is used.

5.2 Emergency Procedures

A Site Environmental Emergency Plan will be prepared prior to construction and communicated to all members of the project team including sub-contractors and emergency services. A Pollution Incident Emergency Response Plan would be developed in accordance with the guidance set out in the Guidance for Pollution Prevention GPP 21: Pollution Incident Response Plans (NIEA, July 2017). The Environmental Emergency Plan would set out the procedures to be followed and measures to be implemented in the event of a pollution incident. These incidents may be the result of:

1. delivery and use of materials;
2. spillages of oils or chemicals;
3. discharge of silty water or other pollutants to watercourses;
4. flooding event; and,
5. fire (emissions to air) and failure to contain firewater runoff.

Emergency procedures are developed to support the response plan. The procedures define the circumstances when the plan should be activated and include:

1. the names and contact details of staff trained in incident response,
2. clearly defined roles and responsibilities,
3. the types and location of emergency response equipment available,
4. the location of the emergency assembly point, and,
5. Procedures for recovering spilled product.

Responsible staff will be trained in emergency procedures to form an Emergency Team, so that these procedures can be implemented swiftly and effectively.

Should an emergency incident occur, the Environmental Manager will be notified immediately. The emergency response will be co-ordinated by the Site Manager.

Protective measures, mitigation, clean up and remediation actions will be identified from the evaluation and shall be put into place, having regard for the sensitivities of the environment.

A record of the emergency incident will be kept showing the nature of the corrective action undertaken.

All relevant staff should be trained in how and when to contact the emergency services, SEPA and other organisations identified in the Environmental Emergency Plan.

5.3 Concrete Pouring

Concrete, cement and grouts are very alkaline and corrosive and can cause serious pollution to water. The following measures shall be followed on-site during construction and pouring of concrete:

1. Ensure that concrete pours are contained within the working area and do not enter any watercourses or surface water drains.
2. When mixing grout on site, construct a suitable barrier around mixing areas, supply lines and around working areas to prevent its escape.
3. Trucks, hoppers, mixers and concrete pumps that have contained concrete must be washed out in a contained area, see 'management of concrete wash out areas' below.
4. All concrete pours will be carried out under supervision,
5. Pours will be properly prepared to avoid run off (shuttering, mud matts, membranes used) and waste.
6. Pouring of concrete should not take place when heavy rain is imminent.

Wash down water arising from the washing of equipment that has come into contact with concrete will be collected in an impervious container.

5.4 Stockpiles

Management of stockpiles in accordance with best practice should include where possible 10 metre buffer zone between the stockpile and the watercourse. If required, additional mitigation such as silt fencing at the toe or geotextile wrapping of the stockpiles should be considered to manage contaminated run off. The following measures are proposed in relation to stockpiling of materials:

1. Locate stockpiles out of the wind or provide wind breaks to minimise dust generation.
2. Keep stockpiles to minimum practicable height and use gentle slopes.
3. Minimise the storage time of materials on site.
4. Store materials away from the site boundary.
5. Minimise the height of fall of all materials.
6. Avoid spillage and clean any spill up as soon as possible.
7. Good soil handling and storage methods including protection of stockpiles with geotextiles.

6 ENVIRONMENTAL PERFORMANCE MANAGEMENT

6.1 Environmental Risk Register

The Environmental Manager should prepare and maintain an Environmental Risk Register having regard for legal requirements, project environmental commitments the potential for aspects of works to cause significant environmental impact.

The Environmental Manager should record responsibilities assigned for actions required for mitigation and control of the environmental risks in the Environmental Risk Register.

The Environmental Risk Register will be subject to regular review by the Environmental Manager together with the Site Manager.

6.2 Consents

Copies of legal consents, permits and licences obtained will be held in the site environmental file by the Environmental Manager.

6.3 Method Statements and Risk Assessments

Specific environmental risks will be assessed during preparation of method statements. Actions and environmental constraints associated with specific construction operations will be included in method statements, field control sheets and activity plans where appropriate. Generic environmental requirements will be included in all method statements.

6.4 Inspections

Routine inspections to check that pollution control measures are in place will be undertaken by the Environmental Manager, who will produce weekly inspection reports. Daily inspections will be made by the supervisors during each shift and any environmental problems or risks that are identified will be actioned as soon as is reasonably practicable. Any issues arising from the daily inspections will be notified to the Environmental Manager.

6.5 CEMP Review Programme

The CEMP is a 'live' document that will be updated by the Contractor and reviewed by the Environmental Manager monthly as a minimum. The CEMP will also be reviewed following any environmental incidents which require the works methods to be updated or changed.

6.6 Notices of Non-Conformance

In instances where the requirements of the CEMP are not upheld a non-conformance and corrective action notice/procedure will be produced. The notice/procedure will be generated during the inspections conducted by the Supervisors, the Site Manager, Environmental Manager or any external third-party audits.

The Site Manager will be responsible for ensuring a corrective action plan is established and implemented to address the identified shortcoming.

6.7 Complaints Handling

The response to any complaints will be managed by the Site Manager, who will inform the Environmental Manager of any environmental complaints. A Complaints Register will be maintained to detail the name and contact details of the complainant, date and time of the complaint, nature of complaint, action taken to resolve issues, and date of complaint handover.

The Environmental Manager will ensure that all environmental complaints and concerns will be responded to in 24 hours.

7 WORK PROGRAMME

7.1 Proposed Programme of Works

The proposed works are anticipated to be completed over a period of approximately 5 weeks.

Preparation, mobilisation and site clearance will take approximately 1 week. Placement of the precast concrete block walls and type 6A infill will take approximately 1.5 weeks. Steel fixing and pouring of reinforced concrete slab will take approximately 1 week. The pouring of the insitu concrete infill and placement of rock armour will take approximately 1 week. Site clearance, demobilisation and contingency shall take approximately 1 week.

7.2 Construction Hours

It is assumed that the construction hours will be:

- 07:00 to 18:00 Monday to Friday;
- From 08:00 to 13:00 on Saturdays,
- No construction works on Sundays and Bank Holidays.

The timing of each phase of works will be subject to tidal restrictions on working.

It should be noted though, that typically the construction hours employed are dependent upon which season the work takes place in with hours in the summer months anticipated to be from 0700 to 1900 hours on weekdays, 0700 to 1300 on Saturdays with no work on Sundays, while in winter the hours would be expected to be 0800 to 1700 hours on weekdays, 0800 to 1300 on Saturdays and no work on Sundays.

Working hours outside of this regime will only occur in exceptional circumstances – if these are known in advance (i.e. not under emergency conditions), discussions will be held with representative of North Ayrshire Council environment and planning team to ensure that the works can be completed with minimal impact on sensitive receptors.

7.3 General Site Set Up

It is anticipated that the site compound and storage shall be set up in and around the car parking area adjacent to the RNLI lifeboat station. Movements to and from the construction site across the promenade shall be strictly controlled. RNLI access will be maintained at all times.

The following will be considered during site mobilisation:

7.3.1 Excavation

Beach material will be excavated to facilitate the installation of the precast concrete block walls by a small excavator working from the beach to prevent settlement into the sand. A temporary ramp shall be formed using the type 6A infill material to provide access. No beach material will be taken off site. The excavator shall be working on or just below the MHWS line and this phase is expected to take 1-2 days.

7.3.2 Ramp Installation

The precast concrete blocks shall be placed by a small excavator or telehandler which shall access the beach area using the temporary ramp. Following placement of all blocks, the infill material shall be placed by a small excavator, brought to level and compacted using a small vibro-plate. Steel reinforcement shall be lifted into position using the excavator and fixed insitu.

The concrete pours for the slab and infill section shall be pumped into position from the promenade to minimise plant movements on the beach and foreshore.

Rock armour / scour protection shall be placed using an excavator operating from the existing North Ayrshire Council Slipway or the newly formed access ramp.

7.3.3 Materials

The types of construction material that will be used as part of the proposed permanent works below mean high water springs (MHWS) includes precast concrete blocks, granular infill, reinforced concrete, and rock armour scour protection. No temporary works materials are envisaged other than timber shuttering for the concrete pours as necessary.

7.3.4 Embedded Mitigation Measures

In order to manage the risk on the environment a number of embedded mitigation measures relevant to Marine Biodiversity are proposed to be incorporated during the construction phase, these are as follows;

1. Disturbance of intertidal zone outside existing sea wall footprint to be minimised where possible.
2. Rock will be washed down off site prior to installation.
3. Adoption by the Contractor of Largs Yacht Haven's existing Oil Spill Contingency Plan.
4. Adoption of measures to minimise risks of spread and/or introduction of invasive non-native species.
5. Potential appointment of an appropriately qualified Environmental Clerk of Works with intertidal environmental experience, if deemed necessary by MS-LOT.

7.4 Deliveries

Delivery of equipment and materials will be carefully controlled and managed at the site. Access and egress to the proposed area will be managed by the General Contractor. Delivery times will be planned in advance.

7.5 Construction Site Security

Throughout the construction phase, adherence to high standards of Health and Safety for all construction workers, site visitors and members of the public will be of paramount importance. All construction activities will take place in the context of the relevant Scottish Health and Safety legislation.

As such, it is important that the construction site is secured adequately to ensure that uncontrolled access e.g. by children or vandals, is restricted as much as possible. As well as the potential health and safety risk from uncontrolled access, it is recognised that one of the biggest causes of pollution events from construction sites is due to the activities of vandals.

8 ENVIRONMENTAL MITIGATION MEASURES

Environmental assessments have been undertaken by others which have assessed the likely impacts that the Proposed Development may have on the environment. Those supporting environmental assessments also propose mitigation measures to reduce the magnitude of effect of those likely impacts. Sections 8.1 - 8.4 details mitigation measures proposed for the Development.

8.1 The Water Environment

The Proposal is not located within a Marine Protected Area (MPA) or designated site. The nearest MPA is the South Arran MPA, located approximately 26 km to the south west of the Proposal and is designated for the protection of kelp and seaweed communities on sublittoral sediment and burrowed mud. The nearest designated terrestrial site under the EU Habitats Directive is the Renfrewshire Heights SPA which is 4 km from the project site. The nearest marine European site is the Inner Clyde Estuary SPA located 23 km to the north east of the Proposal.

The proposed works are characterised by a foreshore dominated by sand, shingle and cobbles, with strandline characterised by washed up seaweeds. Further, all materials placed during construction are inert and will not result in release of contaminants into the water column. Given the volume of material to be moved, low levels of contaminants likely contained within the material and that all works will be undertaken in the dry, there is no pathway for this to affect the water environment.

8.1.1 Suspended Sediment / Sedimentation

Preventing run-off is an effective method of preventing sediment pollution in the water environment. The adoption of appropriate sediment controls during construction is essential to prevent sediment pollution.

The contractor will ensure that mitigation measures are carried out in accordance with the CEMP are adhered to. Sediment control measures will be consistent with the following guideline:

- **GPP 1**: Understanding your environmental responsibilities – good environmental practices (October 2020);
- **GPP 2**: Above ground oil storage tanks
- **GPP5:** Works or maintenance in or near water (February 2018) ; and,
- **PPG 6:** Working at construction & demolition sites (Environment Agency, 2012).

The following measures are suggested to limit any potential water quality issues during construction:

- The location of any stockpile storage areas will be carefully chosen, clearly identified and planned to ensure the best location to reduce material movements and minimal possibility of erosion and cross contamination;
- The exclusion zone shall be marked out with tape and cones to provide a visual reminder of the exclusion zone.

8.1.2 Concrete and Cement Pollution

The impacts in relation to cement and concrete for the proposed development are, for the most part (but not limited to) the installation of concrete slab and infill. Mitigation measures to prevent cement contamination of water bodies will be carried out in accordance with the outlined recommendations within the CEMP. The following measures are to be undertaken to mitigate against potential water quality issues:

- A risk assessment will be carried out to ensure the best location for concrete washout facilities for plant required on site;
- If required, washout from mixing works will be undertaken in a contained impermeable area;
- Any stockpile storage areas will not be stored within any potential exclusion zones;
- The exclusion zone shall be marked out with tape and cones to prevent provide a visual reminder of the exclusion zone.

In circumstances where the above mitigation measures are employed during construction operations, the potential magnitude of the impact to receiving water environment will be reduced to negligible thus reducing the significance of environmental effect will be reduced to minor on a temporary basis.

8.1.3 General Construction Works

The risk of water quality impacts associated with works machinery, infrastructure and on-land operations (for example leakages/spillages of fuels, oils, other chemicals and waste water) will be controlled through good site management and the adherence to codes and practices which limit the risk to within acceptable levels.

In circumstances where mitigation measures are employed during construction operations, the potential magnitude of the impact on receiving water environment will be reduced to negligible thus reducing the significance of environmental effect will be reduced to minor on a temporary basis.

The works will demonstrate adherence to good working practices as detailed in current guidance in the PPGs and GPPs below:

GPP 1: Understanding your environmental responsibilities - good environmental practices. A basic introduction to pollution prevention, with signposts to other PPGs and publications. (October 2020)

GPP 2: Above ground oil storage tanks

For above ground oil storage, excluding oil refineries and distribution depots. (January 2018)

GPP 5: Works and maintenance in or near water

For construction or maintenance works near, in, or over water. (February 2018)

PPG 6: Working at construction and demolition sites

For the construction and demolition industry. (2012)

PPG 7: Safe storage - The safe operation of refuelling facilities

For operators of liquid fuel refuelling facilities; it applies to all types of fixed refuelling facilities. (July 2011)

GPP 8: Safe storage and disposal of used oils

For storing and disposing of used oils. Applies to activities ranging from a single engine oil change to those of large industrial users. (July 2017)

PPG 18: Managing fire water and major spillages

For identifying equipment and techniques available to prevent damage to the water environment caused by fires and major spillages. (June 2000)

GPP 20: Dewatering underground ducts and chambers

For dewatering underground ducts and inspection chambers. (January 2018)

GPP 21: Pollution incident response planning

For producing emergency pollution incident response plans to deal with accidents, spillages and fires. (June 2021)

GPP 22: Dealing with spills

For anyone who is responsible for storing and transporting materials that could cause pollution if they spill. (October 2018)

GPP 26: Safe storage - drums and intermediate bulk containers

For site operators of industrial and commercial premises storing and handling drums and intermediate bulk

containers (IBCs) containing oil, chemicals or potentially polluting substances. (February 2019)

PPG 27 Installation, decommissioning and removal of underground storage tanks

For installing, removing and decommissioning all underground storage tanks (USTs), including those containing petroleum, diesel, fuel oil, aviation fuel, waste oil, domestic heating oil and other potentially polluting materials such as organic solvents. (April 2002)

All of the PPGs and GPPS are downloadable in full from this link:

https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gppdocuments/guidance-for-pollution-prevention-gpps-full-list/

Due cognisance will also be given to the Water Environment (Controlled Activities) (Scotland) Regulations 2011. Main points are detailed below for convenience:

Water Environment (Controlled Activities) (Scotland) Regulations 2011;

Schedule 3;

General binding rules– Part 1;

Operating any vehicle, plant or equipment for the purposes of undertaking activities listed above;

- any vehicles, plant or other equipment must only operate in water where it is impracticable for them to operate on dry land;
- the refuelling of vehicles, plant or other equipment must be undertaken at least 10 metres from any surface water;
- any static plant or equipment used within 10 metres of surface water must be positioned on a suitably sized and maintained impervious drip tray with a capacity equal to 110 % of the capacity of the fuel tank which is supplying the tank or equipment;
- any vehicle, plant or other equipment used in or near surface water must not leak any oil;
- the washing of vehicles, plant or other equipment must be undertaken at least 10 metres away from any surface water and water from such washing must not enter any surface water;

- vehicles, plant or other equipment must not be operated in a river, burn or ditch during periods in which fish are likely to be spawning in the river, burn or ditch nor during the period between any such spawning and the subsequent emergence of the juvenile fish;
- vehicles, plant or equipment must not be operated in any part of a river, burn or ditch if there is a reasonable likelihood that, within 50 metres of such an operation, there are freshwater pearl mussels; and
- during forestry operations the operator must not operate machinery in watercourses

Discharge of water run-off from a surface water drainage system to the water environment from buildings, roads, yards or any other built developments, or construction sites for such developments, and, if desired, the construction and maintenance of any water outfall in or near to inland surface water which forms, or will form, part of that system;

- All reasonable steps must be taken to ensure that the discharge must not result in pollution of the water environment
- the discharge must not contain any trade effluent or sewage, and must not result in visible discolouration, iridescence, foaming or growth of sewage fungus in the water environment
- the discharge must not result in the destabilisation of the banks or bed of the receiving surface water
- the discharge must not contain any water run-off from any built developments, the construction of which is completed after 1st April 2007, or from construction sites operated after 1st April 2007, unless:
    - during construction those developments are drained by a SUD system or equivalent systems equipped to avoid pollution of the water environment;
    - following construction those developments are drained by a SUD system equipped to avoid pollution of the water environment;
    - the run-off is from a development that is a single dwelling and its curtilage; or
    - the discharge is to coastal water;
- the discharge must not contain any water run-off from:
    - fuel delivery areas and areas where vehicles, plant and equipment are refuelled;
    - vehicle loading or unloading bays where potentially polluting matter is handled; or
    - oil and chemical storage, handling and delivery areas;
- constructed after 1st April 2007:
    - all facilities with which the surface water drainage system is equipped to avoid pollution, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in a good state of repair;
    - all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment is prevented from entering the drainage system; and
    - the construction or maintenance of the outfall must not result in pollution of the water environment.

SEPA's Pollution Hotline Number is 0800 80 70 60. It is recommended that in the event of a water pollution incident the SEPA pollution hotline is contacted within 30 minutes unless it is not safe to do so.

8.2 Noise and Vibration

8.2.1 Control of Noise at Source

There are many general measures that will be used to reduce noise levels at source. Such as:

- The avoidance of unnecessary revving of engines and switching off equipment when not required;
- Keeping internal haul routes well maintained and avoiding steep gradients;
- The use of rubber linings in, for example, chutes and dumpers reduce impact noise;
- The minimisation of drop heights; and
- Starting up plant and vehicles sequentially rather than all together.

The use of conventional audible reversing alarms can be a noise nuisance issue on some sites, the reversing alarms used on the proposed site will be of a type which, whilst ensuring that they give proper warning, has a minimum noise impact on persons outside the proposed site. Where practicable, alternative reversing alarm systems will be employed to reduce the impact of noise outside of construction sites.

Prior to the construction phase, the contractor shall review the specification for all plant and equipment to be employed on-site to ensure that the quietest plant/equipment available is to be used. Modifications to plant and equipment to improve sound reduction will be implemented if required, but any alterations shall be conducted in consultation with the plant manufacturer.

For steady state continuous noise, it may be possible to reduce noise by fitting a more effective silencer system or by an acoustic canopy to replace the normal engine cover, if the item of plant is in a stationary position. On-site generators supplying electricity for electric motors will be suitably enclosed and appropriately located.

Noise caused by resonance of body panels and cover plates will be reduced by stiffening with additional ribs or by increasing the damping effect with a surface coating of special resonance damping material. Rattling noises will be controlled by tightening loose parts and fixing resilient materials between surfaces in contact.

As far as reasonably practicable, sources of significant noise will be enclosed. The effectiveness of partial noise enclosures and of screens can be reduced if they are used incorrectly.

Care shall be taken to site equipment away from noise sensitive areas. Where possible, loading and unloading will also be carried out away from such areas. Machines shall not be left running unnecessarily. Plant from which the noise generated is known to be particularly directional should, wherever practicable, be orientated so that the noise is directed away from noise sensitive areas.

Materials shall be lowered whenever practicable and shall not be dropped. The surfaces on to which the materials are being moved will be covered by resilient material.

In order to minimise the likelihood of complaints, North Ayrshire Council and affected residents will be kept informed of the works to be carried out and of any proposals for work outside normal hours.

8.2.2 General Construction Noise Mitigations

In order to ensure that there is no unacceptable noise impact at the nearest noise sensitive receptors during the construction phase, construction phase noise levels should not exceed the appropriate daytime noise threshold limit specified in BS5228:2009+A1:2014 (i.e. 65dB daytime). It is assumed that there will be no evening or night-time construction phase activities.

A detailed construction plan should include a range of measures aimed at reducing the potential construction noise impacts on the nearest receptors to the proposed development site. This plan should address the mode and timing of construction activity in close proximity to the site boundary with the nearest receptors, aiming to reduce the noisiest activities in the vicinity of the boundary of the proposed development. This should also include measures to communicate and coordinate construction phase activities at the nearest boundary to the most affected receptors so as to reduce these noise impacts to the lowest possible levels. The detailed construction plan will include the noise threshold limits included in British Standard BS5228:2009+A1:2014, which must be adhered to throughout the construction phase.

A range of measures should be taken to ensure that the quietest machinery is used or that the use of machinery is such as to be sensitive to the residents at the nearest properties. This should be detailed in the construction plan mentioned above.

British Standard BS5228:2009+A1:2014 – Noise and vibration control on construction and open sites outlines a range of measures that can be used to reduce the impact of construction phase noise on the nearest noise sensitive receptors. These measures will be applied by the contractor where appropriate during the construction phase of the proposed development.

Examples of some of the best practice measures included in BS5228 are listed below:

- ensuring that mechanical plant and equipment used for the purpose of the works are fitted with effective exhaust silencers and are maintained in good working order;
- careful selection of quiet plant and machinery to undertake the required work where available;
- all major compressors will be 'sound reduced' models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use;
- any ancillary pneumatic percussive tools will be fitted with mufflers or silencers of the type recommended by the manufacturers;
- machines in intermittent use will be shut down in the intervening periods between work;
- ancillary plant such as generators, compressors and pumps will be placed behind existing physical barriers, and the direction of noise emissions from plant including exhausts or engines will be placed away from sensitive locations, in order to cause minimum noise disturbance. Where possible, in potentially sensitive areas, acoustic barriers of enclosures will be utilised around noisy plant and equipment.
- Handling of all materials will take place in a manner which minimises noise emissions;
- Audible warning systems will be switched to the minimum setting required by the Health & Safety Executive;

In order to minimise the likelihood of complaints, North Ayrshire Council and affected residents must be kept informed of the works to be carried out and of any proposals for work outside normal hours. A complaints procedure must be operated by the Contractor throughout the construction phase. Best practice will therefore be implemented in order to minimise noise and vibration and comply with the contents and recommendations of the BS 5228 "Code of Practice for Noise Control on Construction and Open sites".

9 FINAL COMMENT

The Contractor is required to develop and implement this Outline Construction Environmental Management Plan (OCEMP) to help ensure that construction activities are planned and managed in accordance with the environmental requirements identified within and the relevant guidance and legislation.

This is VERSION 01 of the OCEMP. Future updates to the CEMP will be sequential and be saved as such (i.e. VERSION 02, 03 etc.) and shall be adopted on site in full.