

Conwy County Borough Council

**Penrhyn Bay Coastal Defence
Improvements**

**Outline Construction Environmental
Management Plan (Outline CEMP)**

282129-ARP-XX-RP-ENV-005

For issue | 7 October 2021

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 282129-00

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1 Introduction

1.1 Project overview

This document is the outline Construction Environmental Management Plan (CEMP) for the Penrhyn Bay Coastal Defence Improvements, being delivered by Conwy County Borough Council (CCBC). The proposed scheme comprises a T-shaped rock groyne structure (approximately 100m long by 90m in width) and associated beach nourishment (pebbles to cobbles). The rock groyne is suited to the local area, which already comprises a number of rock groynes and the beach nourishment will comprise similar material to existing beach deposits. The outline CEMP supports the Planning Application and Marine Licence for works to enhance coastal defences at Penrhyn Bay, Llandudno.

The outline CEMP contains control measures to be implemented, and the standards to be met throughout the construction of the scheme as defined in the application. The CEMP is a version-controlled document.

Conwy CBC, supported by the appointed Managing Contractor, will retain ownership and responsibility for updating the CEMP as construction activities progress. The CEMP incorporates construction mitigation presented in the Non-statutory Environmental Report for the Penrhyn Bay Coastal Defence Improvements scheme, the Ecological Impact Assessment report, and Intertidal Biotope Survey report. These are all provided within the Non-statutory Environmental Report.

1.2 Structure of this document

This document comprises the following sections:

- Purpose of the CEMP (Section 2) - which includes reference to measures and standards to protect the local community and the environment during construction works;
- Environmental management principles (Section 3) – which form the basis of development specific Construction Management Plans (CMPs) to be implemented during construction;
- Implementation (Section 4) - the mechanism by which the contractor(s) appointed by Conwy CBC will ensure environmental commitments are delivered;
- General requirements of the CEMP (Section 5) – an outline of the general construction management measures required related to community relations, hours of work, pollution incident control and security etc.

2 Purpose of the CEMP

This outline CEMP accompanies the planning submission (the ‘application’) for the proposed works.

The principles and requirements within this outline CEMP relate to the management of construction impacts and are to be read in conjunction with relevant health and safety legislation. The term ‘construction’ in the outline CEMP includes any physical work undertaken to implement the project including but not limited to site preparation, utility diversions, material delivery, excavated material removal, waste removal, installation of equipment, landscaping, and all related engineering and construction activities.

This outline CEMP sets out a series of proposed measures and standards of work, which shall be applied by Conwy CBC and its contractors throughout the construction period to:

- Provide effective planning, management and control during construction to control potential impacts upon people, businesses and the natural and historic environment; and
- Provide the mechanisms to engage with the local community and their representatives throughout the construction period.

Measures will be applied during construction to enable the above to be undertaken in a sustainable, efficient and cost-effective manner.

Conwy CBC and its contractors will comply with applicable UK H&S and environmental legislation at the time of construction. For this reason the applicable statutory requirements are not repeated within this outline CEMP. The references to guidance documents within this document are not intended to be exhaustive.

The contractors will comply with the terms of the planning consent including this outline CEMP and any other relevant conditions referenced in the final version of this document or otherwise, or any legislation amending or replacing it.

2.1 Assumptions of the Outline CEMP

This Outline CEMP is based on the information available at the time of writing. It is assumed that the Outline CEMP will be developed into the detailed CEMP by the appointed Contractor(s).

Any planning conditions and commitments made following submission of the planning application (if required) will be incorporated into the CEMP by the appointed Contractor(s).

It is assumed that the CEMP will be updated regularly by the Contractor(s) during construction.

It is assumed that a number of Contractors (including specialist contractors and sub-contractors) may be appointed during construction. All site construction staff,

including sub-contractors, will be required to comply with the CEMP throughout the entire construction stage of the Proposed Development.

It is assumed that any failings in environmental management will be corrected through regular site monitoring and site audits, undertaken by the Contractor's Environmental Manager.

The detailed CEMP will include relevant management plans and methods statements, including but not limited to:

- Biosecurity Risk Assessment;
- Construction Traffic Management Plan (CTMP);
- Dust Management Plan;
- Construction Noise and Vibration Management Plan;
- Surface Water Management Plan;
- Materials Management Plan;
- Site Waste Management Plan (SWMP);
- Emergency and Pollution Response Plan; and
- Remediation Strategy.

3 Environmental management principles

Within this report, Conwy CBC principal contractor and associated sub-contractors will be collectively referred to as ‘contractors’.

Conwy CBC will require its contractors to operate an Environmental Management System (EMS). The EMS provides the process by which environmental management both within its organisation and in relation to its operations is undertaken throughout the construction phase. The EMS will set out:

- the procedures to be implemented to plan and monitor compliance with environmental legislation;
- the key environmental aspects of the work and how they will be managed;
- staff competence and awareness requirements and how these are achieved and maintained;
- record keeping arrangements; and
- procedures to be implemented to monitor compliance with the environmental provisions in this CEMP.

The EMS will include roles and responsibilities, together with appropriate control measures and monitoring systems to be employed during planning and constructing the works.

As part of their EMS, the contractors will be required to plan their works in advance to ensure that, in so far as is reasonably practicable, measures to reduce environmental effects are integrated into the construction methods and are complied with. The works will also be subject to approval processes set out in this CEMP (e.g. suitability of construction phase plans) and by any statutory consents required.

The principal contractor’s EMS will cover the activities of all sub-contractors. The principal contractor will also be required to coordinate with other contractors and relevant parties that may affect their works. This will be documented in their EMS, as appropriate.

The principal contractor’s EMS will include procedures to monitor compliance with the project’s environmental requirements, as set out in Section 4.2.1 of this CEMP, together with provisions for any corrective actions required.

The detailed provisions of the principal contractor’s EMS will be subject to review and acceptance as being suitable by Conwy CBC.

3.1 Guidance

The CEMP will be developed in accordance with relevant best construction practice guidance including:

- Guidance for Pollution Prevention (GPP) 1 – 28¹. In particular:
 - GPP 2 Above Ground oil storage tanks;
 - GPP 5 Works and maintenance in or near water;
 - GPP 6 Working at construction and demolitions sites;
 - GPP 21 Pollution incident response planning;
 - GPP 22 Dealing with spills.

¹ <http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/> (Accessed 03/09/2021)

4 Implementation

4.1 Enforcement

The CEMP will be implemented during the planning and undertaking of construction works. The provisions of the CEMP will be passed by Conwy CBC to the contractors by means of the works contract.

The contractors will be required to comply with the terms of the CEMP by Conwy CBC and appropriate action will be taken by Conwy CBC, as required, to ensure compliance.

The general requirements are listed in the following sections of the CEMP and will be applicable to the whole of the project construction phase.

4.2 Site management

4.2.1 Monitoring

The contractors will undertake the necessary monitoring to comply with the requirements of this CEMP, any additional consent requirements and their EMS.

Monitoring will include:

- monitoring the effectiveness of mitigation measures;
- monitoring the impact of construction works; and
- taking other actions as may be necessary to enable compliance.

Monitoring, together with provisions for any corrective action required, will be implemented under the contractors' EMS.

4.2.2 Training and competence

Conwy CBC will require all contractors to employ an appropriately qualified and suitably experienced workforce and where appropriate will include holding a registration with relevant recognised competence schemes.

Conwy CBC's contractors will be responsible for identifying the training needs of their personnel to enable appropriate training to be provided and suitably qualified and experienced professionals will be engaged for this purpose. The training will include site briefings and toolbox talks for relevant staff to maintain the necessary level of knowledge on health, safety, community relations and environmental topics, an ability to follow environmental control measures and to advise employees of changing circumstances as work progresses.

4.2.3 Contractor Code of Conduct

The contractor(s) will be required to have a Code of Conduct that sets out appropriate behaviour on site (for example, in line with the principals set out by Considerate Constructors).

4.3 Contractor's method statements

The appointed contractors will set out the procedures to be followed for construction operations in method statements which will address health, safety, site security and the environmental issues associated with construction operations.

Method statements will define any specific environmental control measures, including environmental and cultural heritage protection works, to be implemented to meet the requirements of this CEMP.

The contractors' approach to method statements will be reviewed and approved by Conwy CBC and/or Rhyl Harbour Master, Maritime & Coastguard Agency and NRW.

4.4 Supervision

4.4.1 General

Sufficient suitably qualified and experienced personnel will be appointed by the contractors to supervise the main construction works. This will include professionally qualified environmental management staff, with relevant experience in the environmental disciplines included within this CEMP. They will be present on site during the main construction works to advise Conwy CBC and the contract management team and supervise and report on the implementation of appropriate environmental mitigation measures and safeguards.

4.4.2 Contact person

A contact person will be identified, who will be the first point of contact for the regulatory authorities and general environmental enquiries at the construction site. The contact person will be the main contact for all environmental related issues.

5 General requirements

5.1 Advance notice of works

Conwy CBC's contractor(s) will ensure that Natural Resources Wales (NRW) and Conwy planning authority as required, will be informed in advance of works taking place. The notifications will detail the estimated duration of the works, the working hours and the nature of the works. In the case of works required in response to an emergency, NRW, businesses, community resources and other parties as required will be advised as soon as reasonably practicable.

5.2 Direction of working

The primary access to the site will be from the landward side of the development to the east of the site (see Appendix A for the site access location). There is an existing entrance access that will be used to enter the beach along a temporary access causeway which will run alongside the existing sea wall defence. Sensitive design and placement of the access track is required to avoid impacts on the ringed plover breeding area; particularly during the breeding season (May to August inclusive) – refer to EcIA for details.

Additionally, there is the potential option for rock material to be delivered by vessel. However, this option is to be confirmed once the contractor has been appointed and the location of material supply has been identified.

5.3 Working hours

5.3.1 Core working hours

Core working hours will be in line with the reasonable hours for operation of building works:

- 0730hrs – 1930hrs Monday to Friday;
- 0730hrs – 1300hrs on Saturday; and
- No noisy activities on Sunday. To be agreed with CCBC.

CCBC will require its contractors to adhere to these core working hours, as far as reasonably practicable. For the intertidal works, operating hours will need to be based on the tide at Penrhyn Bay and therefore tidal working may be carried out between 05:00 and 22:00 hours.

Except in the case of emergency, any work required to be undertaken outside of core hours (not including repairs or maintenance) will be subject to agreement with Conwy Planning Authority prior to undertaking the works.

5.4 Construction site layout and good housekeeping

To reduce the likelihood of either an environmental incident or nuisance occurring the following measures will be used, where relevant:

- All plant and machinery used on the site shall be properly maintained, lubricated and silenced in accordance with the manufacturer's requirements. No plant or machinery which emits black smoke will be permitted to operate on the site;
- the site induction shall be undertaken for all workers and will include specific reference to, and explanation of, the conditions contained within this CEMP;
- cleanliness on site, provision of staff facilities, compliance with statutory waste management requirements and good practice;
- all plant will be sourced from a trusted reputable company and will have spill kits which site personnel will be trained to use;
- any storage containers required will be appropriately 'bunded' to prevent any spillages or leaks from damaging the local environment. No storage of materials or refuelling operations will be permitted for vehicles/plant outside the site compound;
- vehicles will be loaded with all plant and materials necessary to undertake the works to minimise plant movements below MHWS;
- minimal quantities of fuels, materials, etc. will be taken on to the foreshore to reduce the risk of pollution; and,
- utilising a marine specific product; rapid set marine grade concrete if required.
- prohibition of open fires, and a requirement to take measures to minimise likelihood of fires;
- no discharge of site runoff to drains or sewers without agreement of the appropriate authority;
- maintenance of wheel washing facilities or periodic road sweepers in the event of construction dust accumulation on access roads;
- location of storage, machinery, equipment and temporary cabins off the beach. A small site compound will be located to the east of the site by the access entrance. Minimal quantities of fuels, materials, etc. will be taken on to the foreshore with biodegradable fuel oils implemented where practicable. No refuelling will be undertaken on the site compound;
- the use of less intrusive noise alarms which meet the particular safety requirements of the site, such as broadband reversing warnings, or proximity sensors to reduce the requirement for traditional reversing alarms;
- controls on lighting/illumination to minimise visual intrusion or any adverse effect on birds and the ecological designated sites;
- avoidance of use of loudspeaker or loudhailer devices;
- containing and limiting visual intrusion of construction site, as far as reasonably practicable;

- provision of a constraints map showing sensitive areas and buffer zones where no pollutants or machinery/plant are to be stored or used;
- maintenance of public access wherever practicable;
- adequate welfare facilities for staff;
- smoking areas at site offices/compounds or work sites equipped with containers for smoking waste (these would not be located at the boundary of working areas or adjacent to neighbouring land);
- the implementation of a “Construction Traffic Management Plan” that considers employee travel. This will encourage car sharing and sustainable travel by project staff and control off-site parking;
- a daily environmental monitoring regime by the site team/foreman; and a weekly monitoring regime by the Environmental Clerk of Works; and
- works to or in the vicinity of statutory undertakers apparatus to be carried out in accordance with their guidelines and standards.

5.5 Site lighting

Site lighting and signage will be provided to enable the safety and security of the construction sites. It will be at the minimum luminosity necessary and use low energy consumption fittings. Lighting should be directed away from residential / commercial properties.

5.6 Control of site access

The construction worksite will be under the control of the contractors who have a statutory duty to prevent unauthorised access to the site.

The following measures may be used by the contractors to prevent unauthorised access to the site:

- use of hoarding on the promenade but only where necessary for site security and public safety, and placed so that public rights of way are maintained, or appropriately diverted (any such diversions subject to statutory approvals);
- use of Heras fencing on the beach;
- site lighting at site perimeters;
- adequate security;
- consultation with neighbours on site security matters; and
- immobilisation of plant out of hours, removing or securing hazardous materials from site, securing fuel storage containers and preventing unauthorised use of scaffolding.

5.7 Hoardings, fencing and screening

The following measures will be applied, as appropriate:

- maintenance of adequate fencing and hoardings to an acceptable condition to prevent unwanted access to the construction site, to provide noise attenuation, screening, and site security where required;
- use of different types of fencing, including hoardings used for noise control;
- hoardings provided for visual and acoustic screening of ringed plover breeding area (as advised by a qualified ecologist);
- providing site information boards with out of hours contact details, 24 hour telephone number (for emergencies/comments/complaints), community information and information on the works programme, at key locations;
- displaying notices on site boundary to warn of hazards on site such as construction access, etc.;
- design of hoardings around construction activities shall ensure fitness for purpose and be kept well maintained throughout construction; and
- Hoarding and signage shall reflect & include information on Welsh Government's funding requirements for the scheme under the Coastal Risk Management Programme.

Clear sight lines will be maintained around hoardings and fencing with no hidden corners to avoid, where reasonably practicable, opportunities for anti-social behaviour, crime and to ensure safety of vehicles.

5.8 Clearance and re-instatement of site on completion

On completion of construction works, all equipment and temporary buildings will be removed from the site. Restoration plans will be in line with the design specifications of the planning application which includes public realm enhancements.

5.9 Pollution incident control

5.9.1 Pollution prevention measures

The appointed contractors will develop and implement appropriate measures to control the risk of pollution due to construction works, materials and extreme weather events. This will include a pollution incident control plan, as part of the contractors' EMS, that recognises the risk of pollution from construction activities and presents pro-active management practices to ensure that any pollution incident that may occur, such as a diesel spillage, is minimised, controlled, reported and remediated.

The following measures will be adopted by the contractor to manage the risk of pollution incidents:

- have in place emergency plan in case of oil spill;
- implementation of the Guidance for Pollution Prevention (GPP);

- statement of appropriate information to be provided in the event of any incident such as a spillage or release of a potentially hazardous material;
- notification of appropriate emergency services, authorities and personnel on the construction site;
- notification of relevant statutory bodies, including, as appropriate, e.g. Natural Resources Wales (NRW);
- have certification for all vessels and barges used in the project to demonstrate compliance with current UK Government Guidance “Prevent pollution and reduce harmful emissions at sea” which includes regulations issued by the Maritime and Coastguard Agency;
- provision of a map showing the locations, together with address and contact details, of local emergency services facilities such as police stations, fire authorities, medical facilities and other relevant authorities;
- when delivering large rock to site, usually dropping them in the water column, ensure all material is wet and free from dust;
- ensure that any temporary navigation aids are approved by the relevant authorities;
- ensure that site drainage plans and flood risk management plans are available on site and are kept up-to-date;
- ensure that pollution shut off valves are used for formal drainage;
- provision of appropriate pollution response kits e.g. spill kits/booms etc. at relevant locations, ensuring these are maintained and replaced as necessary;
- ensure staff competence and awareness in implementing plans and using pollution response kit;
- provision of contact details for the relevant authorities, such as NRW, and the persons responsible on the construction site and within the contractors’ organisation for pollution incident response; and
- provision of contacts with a competent spill response company which can be contacted at short notice for an immediate response (where appropriate).

In the preparation of local pollution incident response measures, Conwy CBC’s contractors will consult with relevant organisations, including, where appropriate, statutory bodies and other relevant parties, such as the Health and Safety Executive (HSE) (Construction), the Fire Authority, the Ambulance Service, NRW, utilities companies and Conwy County Council (emergency planning and pollution control functions).

5.9.2 Monitoring

Conwy CBC will require that its contractors have in place effective arrangements to investigate and provide reports on any potential or actual pollution incidents, including, as appropriate:

- a description of the pollution incident, including its location (and Ordnance Survey grid reference), the type and quantity of contaminant and the likely receptor(s);
- contributory causes;
- adverse effects;
- measures implemented to mitigate adverse effects; and
- any recommendations to reduce the risk of similar incidents occurring.

6 Project Specific Requirements

In addition to the general requirements the contractor shall ensure the following requirements are adhered to:

- An ecological toolbox talk will be given to all contractors before works commence to promote understanding of breeding bird disturbance and Priority Habitats on site;
- It is recommended that a Biosecurity Risk Assessment is prepared in advance to avoid the risk of introduction of marine invasive non-native species (INNS) to the construction sites;
- A pre-construction condition survey to enable pre- and post-construction monitoring of *Sabellaria* extent and condition, in addition to wider biotopes, to inform subsequent coastal defence schemes;
- Mitigation measures such as appropriate fencing are recommended to avoid access to sensitive habitats where trafficking of vehicles may directly impact *Sabellaria alveolata* colonies or the Intertidal Boulder communities;
- Breeding ringed plover, as a feature of the North Wales IBA, are located behind the existing cobble ridge. Temporary hoardings are recommended during any construction works within the ringed plover breeding season (May – August inclusive) to minimise visual and acoustic disturbance. All breeding birds and their nests are protected by law (WCA, 1981). Where practicable, all activities required in the vicinity of the breeding area are to be scheduled outside the breeding season.
- Sensitive alignment of the temporary construction access track will be required to avoid direct and indirect (visual and acoustic disturbance) impacts on breeding ringed plover (unless programme allows avoidance of the breeding period – May to August inclusive). A suitable buffer (as advised by an experienced ecologist) between the breeding area and the temporary access track would be necessary throughout the breeding season.
- A pre-construction survey is recommended before works commence to identify any nesting birds within or near the proposed works areas, and to provide appropriate screening and buffering of nest habitats from the works;
- It is recommended that where practicable, construction plant do not access the areas north and east of the groyne footprint to avoid damage to existing habitat features – the intertidal construction footprint should be minimised as far as practicable. Much of the habitat to the south (sandy sediment) is resilient to disturbance and will rapidly remediate post-construction. By commencing material deployment from the north and east shorewards, the more sensitive habitats should incur less disruption.
- Adherence to the Guidelines for Pollution Prevention will be integral to avoid the potential for pollution incidents;
- When delivering large rock to site, ensure all material is wet and free from dust before depositing on the beach – to maintain water quality parameters.

Location for delivery to be approved by Conwy and/or Rhyl Harbour Master, Maritime and Coastguard Agency and NRW;

- Silt curtains will be employed to reduce sediment plume dispersion if construction (material movements) is underwater. Aim to undertake material movements at low tide wherever practicable, to reduce the risk of generating sediment plumes.
- Provide certification of all vessels and barges used in the project to demonstrate compliance with current UK Government Guidance “Prevent pollution and reduce harmful emissions at sea” which includes regulations issued by the Maritime and Coastguard Agency. During transit by vessel the following restrictions should be included, e.g., no bunkering on route or at the site, no waste disposal to sea, no grounding at any point or only in designated areas (this is also relevant for the environment to avoid damage to seabed habitats);
- It is recommended a Geoarchaeological deposit model based on borehole data from geotechnical ground investigations and any historic data is undertaken. Further consultation to be undertaken with Gwynedd Archaeological Planning Service to confirm the requirement for a watching brief and geotechnical deposit testing.
- Have in place an emergency plan during adverse weather conditions (egress and pollution control);
- Liaison with all relevant authorities to obtain all necessary consents for temporary marine traffic arrangements and navigation aids (if required). Navigation aids are typically floating objects anchored to the seabed with lights;
- All worked areas to be in adherence to any marine licencing requirements or planning conditions;
- Protection of existing utilities and consultation with the service apparatus owner prior to commencement of works, including;
 - Wastewater Treatment Works outfall; and
 - Street lighting;
- Public Rights of Way diversion routes provided where temporary closures are required including for the Wales Coast Path and National Cycle Network; and
- Prior to commencement of construction, communication with local residents and businesses will be undertaken informing them of the planned programme of works;
- Disruption from improvement works to the Promenade to be minimised during the summer season.

Appendix A

Site Location Plan

A1 Site Location Plan



Legend

- Proposed Beach Nourishment Outline
- Proposed Groyne Outline
- Site compound, vehicle and site access and temporary access causeway
- Works Area

001	2021-09-21	VS	SC	GM
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Issue	Date	By	Chkd	Appd
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Client

CONWY COUNTY BOROUGH COUNCIL

Job Title

PENRHYN BAY COASTAL DEFENCE IMPROVEMENTS

**SITE LOCATION PLAN,
PENRHYN BAY**

Scale at A3

1:2,000

Job No	Drawing Status
282129-50	FINAL

Drawing No	Issue
001	001

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