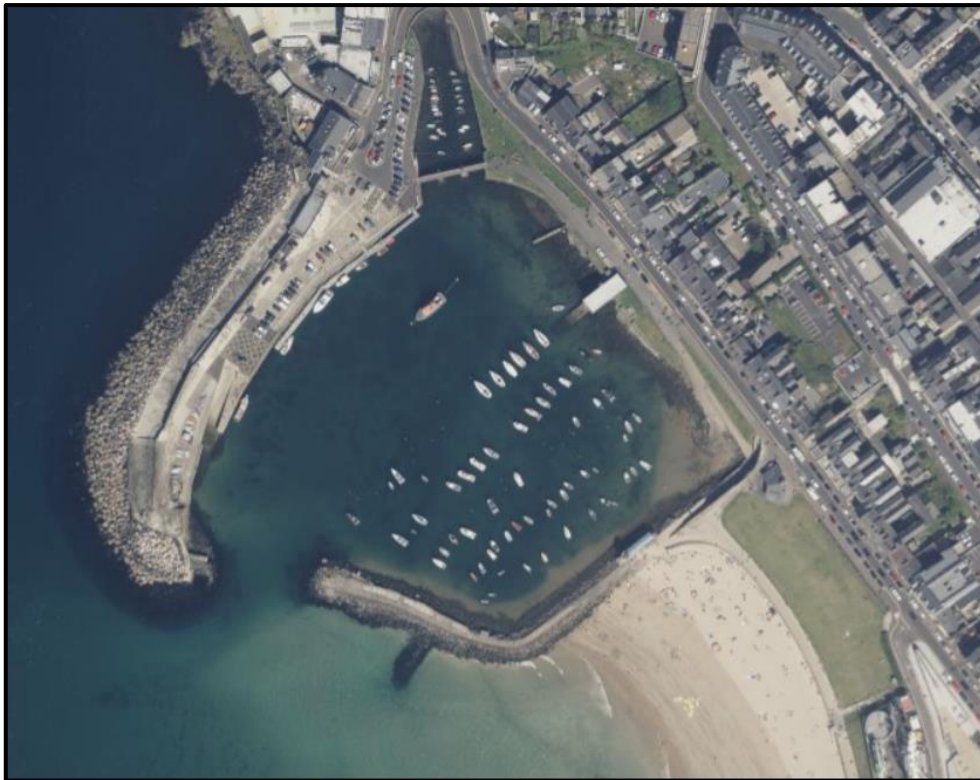




**South Pier, Portrush Harbour
Essential Remedial Works
Outline Construction Environmental Management Plan
(CEMP)**

May 2024



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1.0 INTRODUCTION

1.1 Outline CEMP Overview

This Outline Construction Environmental Management Plan (CEMP) has been prepared by [REDACTED] Environmental Consultant as commissioned by Causeway Coast and Glens Borough Council. The Outline CEMP is designed to direct the appointed Contractor in respect of legislative requirements and best practice principles. This approach ensures that potential to cause detrimental impact to the environment is negligible.

In preparing this Outline CEMP, cognisance has been taken of key DAERA requirements that a CEMP should identify the perceived risks to the aquatic environment, potential pollution pathways and mitigation measures to negate such risks. Elements considered within the Outline CEMP include:

- Construction Method Statement, including details of construction and excavation
- Pollution Prevention Plan, including details of a suitable buffer of 10 m between the location of refuelling, storage of oil/fuel/substrate/construction materials/machinery, concrete mixing and washing areas and the adjacent designated site boundary
- Site Drainage, including details of foul waste disposal and surface water discharge
- Environmental Emergency Plan, including details of emergency spill procedures and regular inspections of machinery onsite.

In ensuring that there is a management framework for implementing procedures for environmental protection and mitigation, this Outline CEMP requires the appointed Contractor to plan, train, monitor and audit the construction processes during the course of the proposed works.

As an Outline CEMP, the appointed Contractor has ultimate responsibility to finalise the CEMP and submit to Causeway Coast & Glens Borough Council for full approval prior to works commencement in conjunction with a detailed Construction Method Statement. It is the responsibility of the appointed Contractor to ensure that the CEMP is compatible with other necessary systems (e.g. Health & Safety, Quality etc.).

1.2 Project Overview

Causeway Coast & Glens Borough Council (CC&GBC) is proposing to undertake essential remedial works at the South Pier, Portrush Harbour, Irish Grid Reference (IGR) C 85503 40613 (Figure 1.1). The proposed works are for the repair of voids underneath the pier structure by concrete infilling and the replacement of rock armour in areas where there are slippages/depressions in the existing rock armour. They are essential remedial works to ensure the safe and practical operation of the pier, within the operational harbour. The works were preceded by a Condition Assessment Survey undertaken by Doran Consulting in order to facilitate the design of remedial works options.



Figure 1.1: Site Location, South Pier, Portrush

The proposed works will be put out to competitive tender and upon appointment of a successful Contractor a full detailed methodology will be available. The following statement provides a summary of the proposed works, based on the information available at the time of submission.

A condition survey of the South Pier at Portrush Harbour has identified several areas of voids/depressions/slippages within the rock armour revetment. In addition, a GPR survey of the concrete deck has identified voids below the concrete slab on top of the pier (Figure 1.2).

Rock Armour Revetment – Proposed Remedial Works

The proposed Works comprises installation of new rock armour to reinstate the defective areas within the existing revetment (Figure 1.3). The voids/depressions within the existing revetment will be filled with HMA 1000 / 3000 rock armour in accordance with BS EN 13383-1:2002.

A temporary stockpile of suitable rock armour will be made on-site. There are two options for placing the rock armour:

1. **Land-based plant:** Long-reach excavator located on top of the pier or operating from the beach along the revetment.
2. **Marine plant:** Long-reach excavator located on a floating pontoon.

The profile of the placed rock armour will be monitored closely until the required profile has been achieved.

Void Below Concrete Slab – Proposed Remedial Works

End of Casing grout injection will be used to fill existing voids caused by wash-out of granular fill and to densify surrounding fill (Figure 1.4).

The casings will be drilled (120 mm diameter) and installed through the concrete deck slab. The casings will be taken to the base of the void and grout injected through the casings under gravity. The casings will be lifted 0.5 m and grouting procedure repeated. The number of lifts required will be determined based on the extent of the void. Temporary shuttering will be installed along the edge of the pier slab to prevent any grout loss into the marine environment.

The voids will be filled using a high flow concrete (S4 consistency) with an underwater/anti-washout admixture such as Sika UCS Pak to prevent washout.

A secured Contractors Compound will ensure that hazardous material storage containers and fuelling points are located a minimum of 10 m from the water's edge.

The construction will not involve any piling works and the concrete slab repairs will be by drilling and casing grout injection. Any waste material will be disposed of in accordance with Duty of Care Regulations.

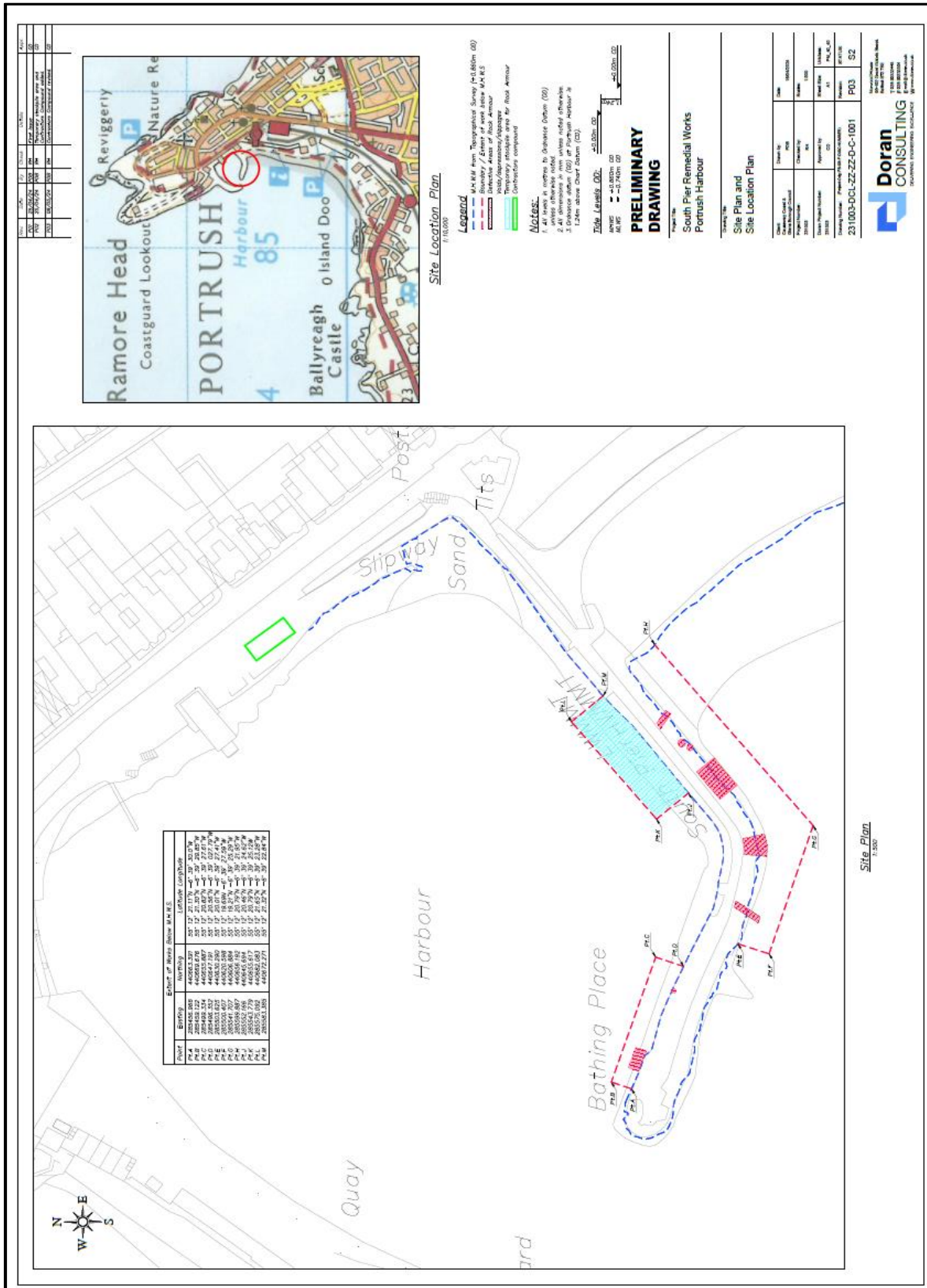


Figure 1.2: Site Plans, Portrush South Pier

1.3 Relevant Documentation

The following documents should be reviewed and, where appropriate, implemented in line with the requirements of this Outline CEMP:

- South Pier Portrush Harbour Habitats Regulations Assessment, Paul McArdle Environmental Consultant, May 2024
- South Pier Portrush Harbour Condition Assessment, Doran Consulting, 8/8/2023
- Skerries & Causeway SAC Conservation Objectives, March 2017

1.4 Relevant Legislation & Guidance

Subject	Legislation / Guidance
Marine Licence	<ul style="list-style-type: none"> • Marine & Coastal Access Act 2009 • The Marine Licensing (Exempted Activities) Order (NI) 2011
DAERA 'Standing Advice' <i>Development that may have an effect on the Water Environment</i>	<ul style="list-style-type: none"> • Discharge to the Water Environment • Pollution Prevention Guidance • Marine Litter
DAERA 'Standing Advice' <i>Development that may effect Natural Heritage Interests</i>	<ul style="list-style-type: none"> • Invasive Alien Species • Priority Habitats • Priority Species
DAERA Guidance	<ul style="list-style-type: none"> • Marine Non-native Species • Marine Mammal Disturbance
Air Quality	<ul style="list-style-type: none"> • The Air Quality Standards Regulations (NI) 2010 as amended to 2017 • Clean Air Act 1993
Noise	<ul style="list-style-type: none"> • Environmental Noise Regulations (NI) 2006 • Control of Noise (CoP for Construction and Open Sites) Order (NI) 2002 • The Construction Plant & Equipment (Harmonization of Noise Emission Standard) (Amendment) Regulations 1995
Climate Change	<ul style="list-style-type: none"> • Climate Change Act 2008
Archaeological	<ul style="list-style-type: none"> • Historic Monuments and Archaeological Objects (NI) Order 1995
Waste Management	<ul style="list-style-type: none"> • Controlled Waste & Duty of Care Regulations (NI) 2013 as amended to 2014 • Hazardous Waste Regulations (NI) 2005 as amended to 2015 • Registration of Carriers & Seizure of Vehicles Regulations (NI) 1999 • GPP 4: Treatment & Disposal of Wastewater • DAERA RPS: Construction/Demolition Waste & Recycled Aggregate 2016
Water & Pollution Control	<ul style="list-style-type: none"> • Water (NI) Order 1999 as amended to 2004) • Water & Sewerage Services (NI) Order 2006 • Control of Pollution (Oil Storage) Regulations 2010 • GPP 2: Above Ground Oil Storage • GPP 5: Works & Maintenance in or Near Water • GPP 6: Working on Construction & Demolition Sites • GPP 21: Pollution Incident Response Planning • GPP 22: Dealing with Spills • GPP 26: Safe Storage: Drums & IBCs
Nature Conservation	<ul style="list-style-type: none"> • Wildlife (NI) Order 1985 • Nature Conservation & Amenity Lands (NI) Order 1985 as amended to 1989 • Environment (NI) Order 2002 • Wildlife and Natural Environment Act (NI) 2011 • Conservation (Natural Habitats, etc.) Regulations (NI) 1995 • The Invasive Alien Species (Enforcement & Permitting) Order (NI) 2019

1.5 Marine Licence & HRA

These works are subject to the granting of a Marine Construction Licence. No works shall be carried out prior to receipt of the Marine Construction Licence. The appointed contractor shall adhere to all conditions set out in the Marine Construction Licence and, where appropriate, retain records of monitoring and auditing.

In addition, all mitigation measures identified in the HRA Report shall be incorporated into the finalised CEMP by the appointed Contractor.

2.0 METHODOLOGY

2.1 Site Access

Access and egress at the site will be via Kerr Street, Portrush. Where possible, plant will be fitted with rubber tracks or temporary mats will be used to minimise potential for damage to existing roads or concrete structures. Prior to work commencing, the Site Manager will cordon off the working areas with Heras Fencing. Minimal impact on the users of the local road network is anticipated during the construction phase relating to the delivery of plant, equipment and materials associated with the Works. The main activities that will give rise in road vehicles visiting the site include:

- Mobilisation (arrival of plant, temporary office, fencing)
- Materials delivery (construction materials, concrete, fuels)
- Demobilisation (departure of plant, temporary office, fencing)

It is envisaged that site plant will be restricted to one excavator and one dumper. The appointed Contractor shall ensure that an appropriate Traffic Management Plan is established (Section 6.0).

Note: If pontoon based long excavator option is preferred, onshore site plant will be minimised.

2.2 Pre-Works Set-Up

To ensure there will be no unauthorised access, the site shall be enclosed with appropriate security fencing (Heras Fencing).

Within the Contractors Compound, areas for storage (including plant, refuelling and chemicals) shall be clearly demarcated with appropriate signage.

2.3 Foul & Storm Discharge

There will be no impact on existing foul or storm drainage systems. The site shall be kept clean and appropriate procedure for fuel/chemical storage and delivery shall be enforced. Construction workers facilities will include portable toilets (or existing public toilets) with no direct discharge to watercourse or ground.

3.0 MANAGEMENT OF THE WORK

3.1 Management Structure

A detailed Management Structure and Responsibility Matrix shall be provided by the appointed Contractor prior to commencement of works. It will identify individuals responsible for:

- Senior Project Management
- Contract Management
- Site Management
- Environmental & Planning Consent Compliance
- Health and Safety Management

3.2 Staff Competence

The appointed Contractor shall deliver the works in accordance with the requirements of the finalised CEMP to ensure negligible detrimental impact on the environment. This will involve implementing appropriate mitigation measures, seeking advice from specialist advisors and suitable training of employees, sub-contractors and third parties. The appointed Contractor shall be responsible for overseeing all ecological and environmental aspects during construction.

Staff training will be delivered by an experienced Site Manager, or a specialist third party. Training delivery may include Site Inductions, Briefings and 'Tool-Box' Talks. It is imperative that all personnel engaged in activities that may have an effect on the environment receive suitable training and are competent to carry out their duties. All staff and contractors will be made aware of the requirements set out in the finalised CEMP. All staff must be briefed on their roles in the event of an environmental incident.

As a minimum, staff training shall include:

- Risk Assessment and Method Statement (RAMS) site specific procedures, requiring all personnel to be aware of and sign off the appropriate RAMS for the task(s) in which they are engaged
- Ecological precautionary working method statements to protect sensitive ecology during the works
- Full Health and Safety induction with emphasis on the correct PPE which is to be provided by the appointed Contractor
- Awareness of the potential for harm to both personnel and the environment from the works
- Awareness of the sensitivity of the environment surrounding the site
- General stakeholder awareness

3.3 Risk Assessments and Method Statement (RAMS)

The appointed Contractor shall prepare RAMS in conjunction with expert third parties, if necessary. These will include a review of the environmental risks and commitments so that appropriate control measures can be developed and included within the construction process.

Risk assessments shall:

- Identify the significant environmental effects that can be anticipated
- Assess the risk from these effects
- Identify the control measures to be taken and re-calculate the risk
- Report where and inappropriate level of residual risk is identified so that actions can be taken through design changes, or alternative method of working to reduce the risk to an acceptable level

RAMS shall be submitted prior to works commencing. If the works are changed from the approved method, then works shall cease until suitable authorisation is obtained.

3.4 Programme

The appointed Contractor shall submit a detailed programme of works for approval by Causeway Coast & Glens Borough Council. The expected timescale to complete the works is approximately 20 weeks within the period September 2024 to June 2025.

3.5 CDM Management Structure

The following information will be completed by the appointed Contractor:

Role	Company	Contact	Phone & Email
Client	CC&GBC		
Project Manager			
Principal Designer			
Principal Contractor			

4.0 SITE ENVIRONMENT DETAILS

4.1 Location

The site is located at the South Pier, Portrush Harbour, Irish Grid Reference (IGR) C 85503 40613. It is bound to the immediate north by Portrush Harbour, to the west and south by open water and to the east by the town of Portrush (Figure 1.1, Section 1.0). The proposed works are for the repair of voids underneath the pier structure by concrete infilling and the replacement of rock armour in areas where there are slippages/depressions in the existing rock armour. They are essential remedial works to ensure the safe and practical operation of the pier, within the operational harbour.

4.2 Designated Environmental Sites

The most significant designated environmental site is the Skerries & Causeway Special Area of Conservation (SAC) and an Area of Special Scientific Interest (ASSI) (Figure 4.1). The proposed essential remedial works are adjacent to and within SAC at the entrance to Portrush Harbour. The SAC selection features are:

- Sandbanks which are Slightly Covered by Sea Water all the Time
- Reefs
- Submerged or Partially Submerged Sea Caves
- Harbour Porpoise

In respect of other SACs, the site is approximately 6 km north east of Bann Estuary SAC, approximately 8 km south west of North Antrim Coast SAC, approximately 10 km north east of Magilligan SAC, approximately 71 km north west of Maidens SAC and approximately 83 km north west of North Channel SAC.

The site is also adjacent to Portrush West Strand Area of Special Scientific Interest (ASSI). The ASSI is important because of the underlying geology and is underlain by layers of peat and dune sands that reflect a complex pattern of coastal changes in the area dating from at least 7,300 years ago.

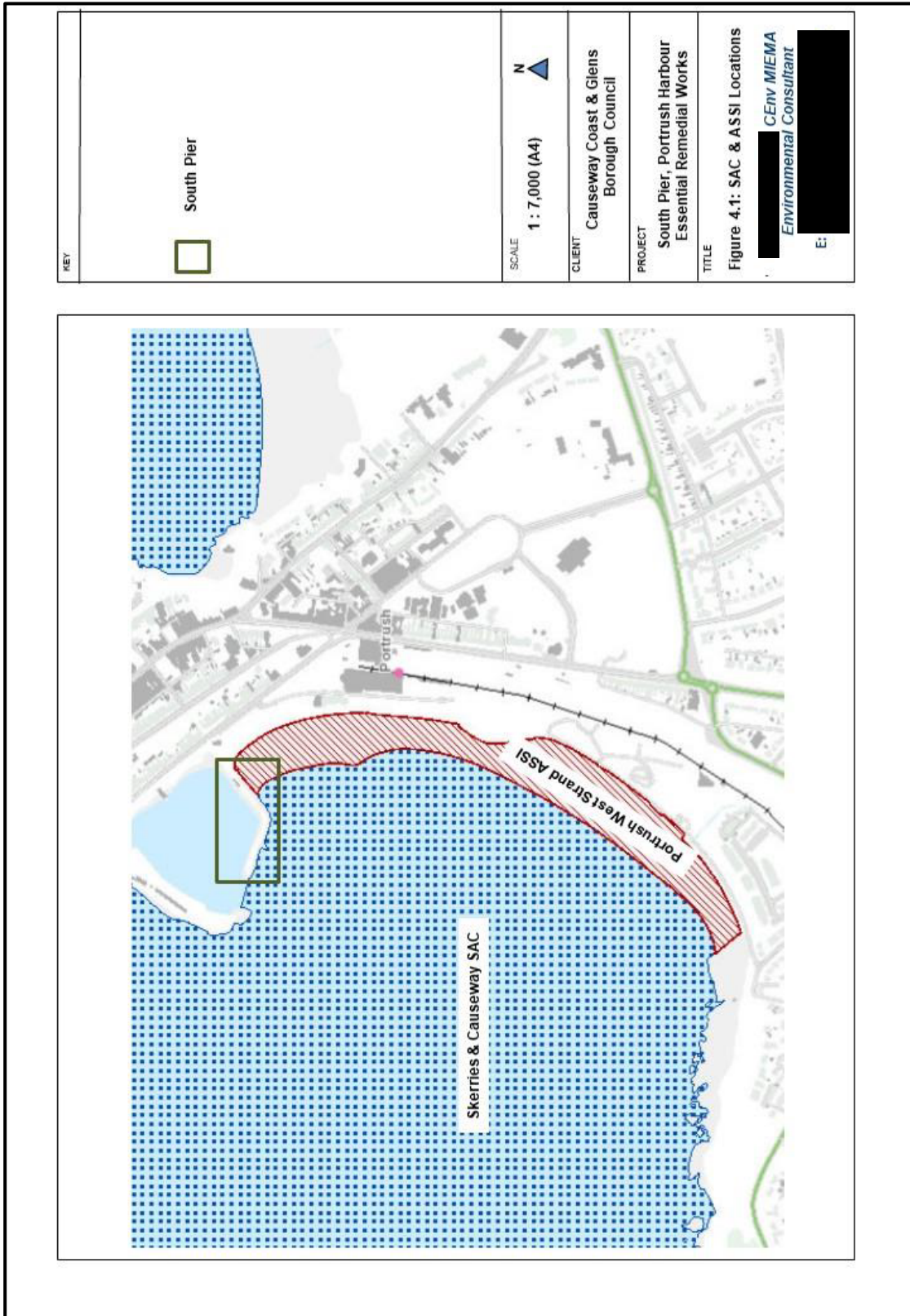


Figure 4.1: Skerries & Causeway SAC & Portrush West Strand ASSI

4.3 Archaeology and Cultural Heritage

There are remains of a buried Drontheim shipwreck approximately 10 m south of the nearby Old Slipway toe. The contractor will be made aware of this and the works shall not impact on the site. Otherwise, the proposed project presents no known archaeological or cultural heritage implications. However, if any suspected archaeological or cultural heritage items are identified during the works, DAERA's Marine Historic Environment Advisor shall be contacted for immediate advice and works in that area suspended.

4.4 Flora & Fauna

Skerries and Causeway was designated an SAC on the following features: reef, sandbanks slightly covered by seawater at all times, submerged or partially submerged sea caves and harbour porpoise. The closest Annex 1 marine habitats include reef (adjacent), mudflats & sandflats not covered by seawater at all times (adjacent) and submerged sandbanks (~0.15 km). The essential remedial works will not involve any piling. Therefore, the disturbance impact on harbour porpoise and other marine mammals is insignificant. However, there remains the potential for adverse impact from the project on water quality and therefore potential risk to the achievement of relevant conservation objectives in respect of harbour porpoise in the adjacent SAC.

In addition to the designated site selection features, it is recognised that concerns around invasive alien species are relevant, especially given the proximity to open water. Many invasive alien species have been intentionally or unintentionally introduced into Northern Ireland from around the world. Once established invasive alien species can have a wide range of economic and social impacts. The ecological effects of invasive alien species are often irreversible and, once established, they can be extremely difficult and costly to control and eradicate. Significant threats are now posed by invasive alien species. Therefore, strict protocols shall be in place in respect of plant and equipment used on-site.

These essential remedial works are programmed to commence in September 2024. This timing facilitates avoidance of the main bird nesting season.

4.5 Stakeholders

Local stakeholders include:

- Causeway Coast & Glens Borough Council
- Residents
- Tourists (especially using West Strand Beach)

A Traffic & Pedestrian Management Plan for the interface of the works with the public shall be provided.

5.0 POLLUTION CONTROL & MITIGATION

5.1 Guidance

In considering pollution control and mitigation, the appointed Contractor shall take account of the legislation and guidance in Section 1.4, with particular reference to the following DAERA 'Standing Advice' and Guidance:

- Development that may have an Effect on the Water Environment
 - Discharge to the Water Environment
 - Pollution Prevention Guidance
 - Marine Litter
- Development that may effect Natural Heritage Interests
 - Invasive Alien Species
 - Priority Habitats
 - Priority Species
- Marine Non-Native Species
- Marine Wildlife Disturbance

5.2 Site Drainage

The site is an open pier and storm run-off is directly to open water, thus providing a diverse pollution pathway.

During construction, the appointed Contractor shall ensure that:

- Only clean storm water is allowed to drain directly to open water
- Portable toilets and wash facilities are be established with no on-site drainage (or public toilets will be used by construction workers)

5.3 Invasive Alien Species

To mitigate the threat of alien invasive species spreading as a result of the proposed works, an 'Inspect, Remove, Clean, Dispose & Report' approach shall be implemented. Plant and equipment shall be subject to the following prior to leaving its previous location:

- **Inspect** all equipment that has been in a waterbody or terrestrial site for attached vegetation, contaminated soil or obvious animal life before moving to another waterway, catchment or site
- **Remove** any adhering plant, soil or animal material from your equipment for disposal before relocating to another site. Ensure that all residual water is drained from equipment before transportation to another site and all soil is removed from machinery, as this may contain seed or plant fragments
- **Clean** all equipment with a power hose away from the waterbody. Use hot water (>60 degrees centigrade) where possible

- **Dispose** of all plant and animal material in bags or containers for disposal in bins.
- **Report** and take photos of species you think may be an INNS on the Invasive Species NI website

The above shall also be applied to plant and equipment prior to removal from site on completion of works.

5.4 Chemicals and Hazardous Materials

Chemicals and hazardous materials shall be stored on site during the construction phase. These may include Fuels, Oils, Cements and Paints/Coatings.

The appointed Contractor shall be responsible for finalising the site layout plan which will show the location of the Contractors Compound, including bunded storage facilities for fuels and other chemical and hazardous materials (at least 10 m from any watercourse).

Strict adherence to relevant Guidelines for Pollution Prevention (GPP) shall be required:

- GPP 2: Above Ground Oil Storage
- GPP 5: Works and Maintenance in or Near Water
- GPP 6: Working on Construction & Demolition Sites
- GPP 21: Pollution and Response Planning
- GPP 22: Dealing with Spills
- GPP 26: Safe Storage/Drums and Intermediate Bunk Containers

5.5 Fuelling Procedures

The appointed Contractor shall be responsible for ensuring that fuelling procedures are strictly adhered to. As a minimum the following shall apply:

- Only authorised personnel permitted to refuel plant & vehicles
- All fuel deliveries to be supervised by authorised personnel
- Locate fuelling point at least 10 m from any watercourse
- Provide fully stocked Spill Kit with Spill Procedure (Figure 5.1)
- Ensure fuel tank is protected from accidental damage, collision or vandalism
- Ensure distribution hose is fitted with a shut-off type filling nozzle and lock
- Ensure a drip tray is in place below the hose and nozzle when not in use
- Record fuel tank level on daily basis

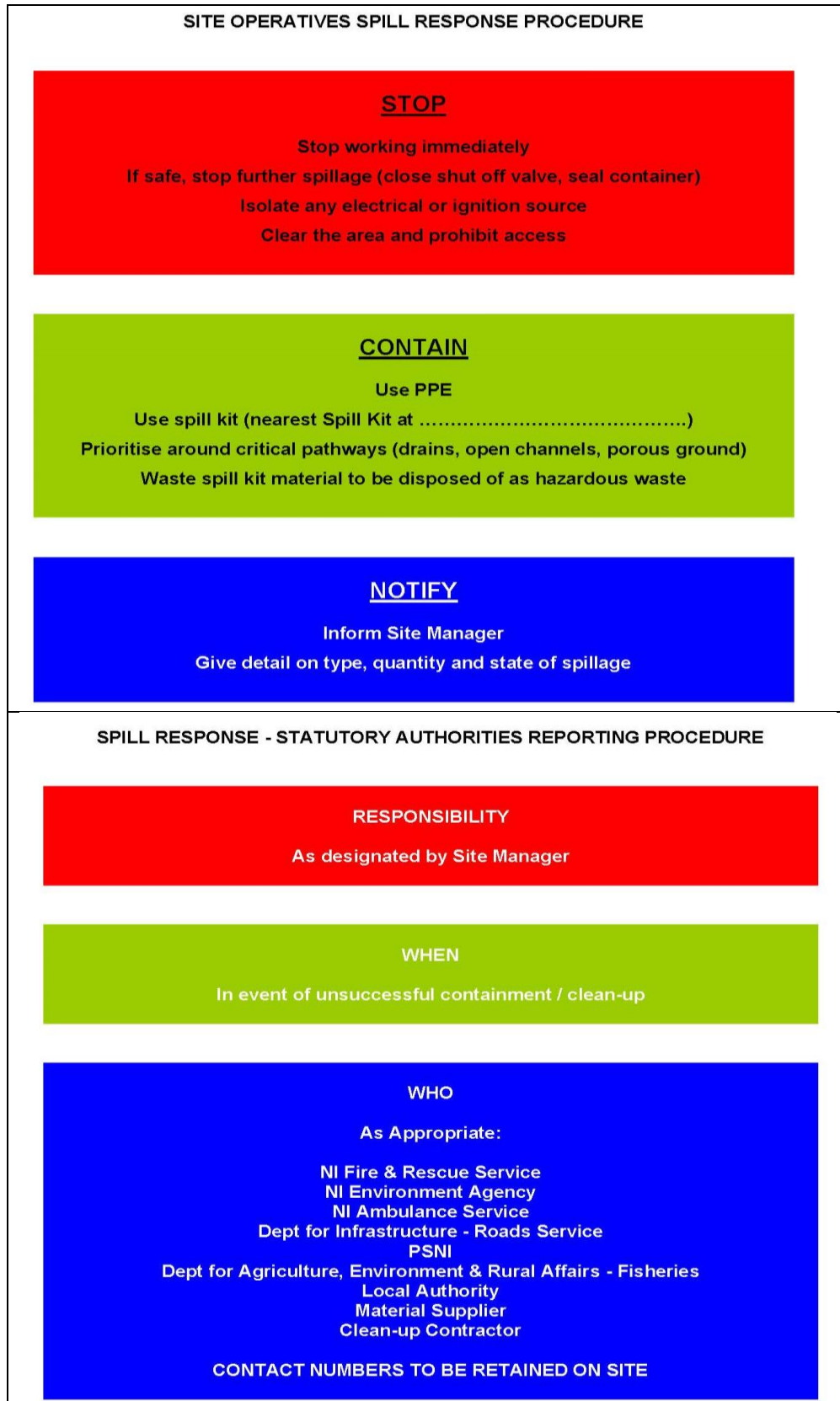


Figure 5.1: Spill Response Procedure Template

5.6 Ready-mix Wash Water

There shall be no ready-mix wash-out on site or along adjacent roadside. Suppliers will be required to return to their location to wash-out in accordance with best practice.

5.7 Vehicle Washing

There shall be no vehicle washing on site unless required in accordance with the Invasive Alien Species Procedure (Section 5.3).

5.8 Air Quality

The appointed Contractor shall ensure that all vehicles and machinery are well-maintained, engines and machinery are not left running unnecessarily when not in use and that vehicles are kept clean.

The appointed Contractor shall ensure that entrance and internal hardstanding areas are kept free from material that could be transferred to adjacent Kerr Street. Any such material on Kerr Street is to be clean-up immediately. No water spraying is permitted.

5.9 Noise & Vibration

The appointed Contractor shall ensure that all plant and equipment is suitably maintained and serviced.

6.0 TRANSPORT & ACCESS

Access and egress at the site will be via Kerr Street, Portrush. Where possible, plant will be fitted with rubber tracks or temporary mats will be used to minimise potential for damage to existing roads or concrete structures. Prior to work commencing, the Site Manager will cordon off the working areas with Heras Fencing. Minimal impact on the users of the local road network is anticipated during the construction phase relating to the delivery of plant, equipment and materials associated with the Works. The main activities that will give rise in road vehicles visiting the site include:

- Mobilisation (arrival of plant, temporary office, fencing)
- Materials delivery (construction materials, concrete, fuels)
- Demobilisation (departure of plant, temporary office, fencing)

It is envisaged that site plant will be restricted to one excavator and one dumper. The appointed Contractor shall ensure that an appropriate Traffic Management Plan is established to include:

- Large scale vehicle movements shall be timed to avoid peak hours on the local road network
- Loading and Off-loading of all plant shall occur on-site and not on the public road
- Vehicular and pedestrian management plan shall be provided to ensure a safe interface of the site compound with the public
- Road shall be open for the public at all times
- Appropriate speed limit shall be enforced
- Entrances to the site shall be kept clean of mud and other debris
- Local streets and roads shall be monitored for mud and debris
- Suitable out-of-hours storage area shall be provided for all plant & vehicles

Note: If pontoon based long excavator option is preferred, onshore site plant will be minimised.

7.0 WASTE MANAGEMENT

The appointed Contractor shall ensure that waste is managed in accordance with Duty of Care requirements. Specifically, the DAERA Regulatory Position Statement of November 2016 on Construction/Demolition Waste and Recycled Aggregate shall be followed.

A material is likely to be Construction and Demolition Waste if:

- It's left over, unwanted or a burden, e.g. building rubble from knocking down buildings
- It can no longer be used for its original purpose, it's out of date or has become damaged or unsuitable for use, e.g. machines beyond repair, materials past their use by dates
- Once it is deemed to be waste, even if it has a commercial value to other people, it will remain a waste until it is turned into a new product and achieves End of Waste e.g. scrap metal waste remains waste until it is recycled into new product

The appointed Contractor shall ensure the following within a Waste Management Plan:

- Designated roles & responsibilities
- Designate waste handling areas and segregate/label waste correctly for collection, in accordance with the collectors' instructions
- Establish a Reduce, Reuse & Recycle Procedure in accordance with the Waste Hierarchy
- Any waste materials arising from the works which are suitable for reuse on the proposed development shall be retained and stockpiled where possible to incorporate such materials into the subsequent remediation and construction process
- Seal/cover stockpiles where practicable
- Ensure litter collection
- Incineration of waste on site is strictly prohibited
- Obtain a copy of any waste carriers licence
- Retain waste transfer notes for all inert and non-hazardous waste removed for a minimum of two years
- Retain consignment notes for all hazardous waste removed for a minimum of three years
- Ensure that waste is only transferred to a waste management facility that is authorised to accept it (retain copy of site authorisation)
- Monitor waste management procedures, including waste contractors