



# Aberdeen Harbour Expansion Project

## **Construction Environmental Management Document**

11 May 2017

**DRAGADOS**

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# Chapter 1

## Introduction

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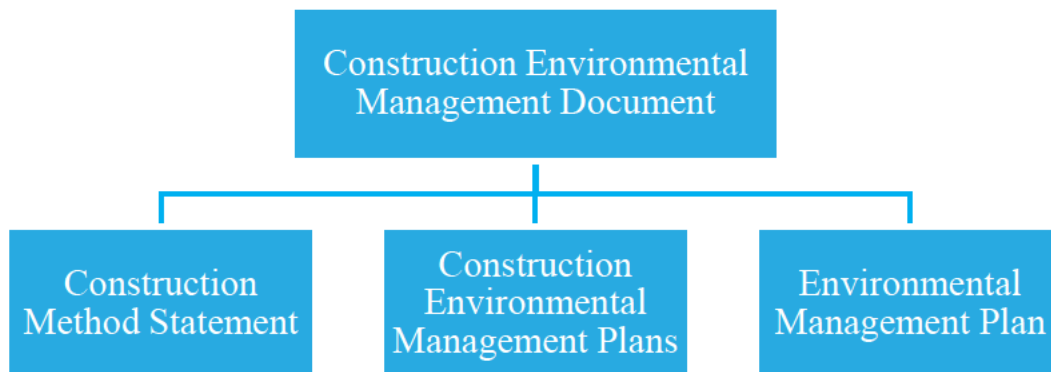
# 1 Introduction

Arup have prepared this Construction Environmental Management Document (CEMD) on behalf of Dragados in support of the proposed Aberdeen Harbour Expansion Project (AHEP).

The requirement to produce a CEMD is listed under Schedule 3.2.4, of both the Marine Construction Licence, Marine Dredging Licence, and Schedule 2 of the Harbour Revision Order. This Plan has been produced to fulfil these requirements.

This CEMD uses information from the Outline Environmental Management Plans included within the Environmental Statement (ES)<sup>1</sup> and additional information for the proposed development alongside the Dragados Construction Method Statement (CMS), which forms Chapter 3 of the CEMD. The CEMD and CMS will be key tools in managing and minimising any potential environmental impacts from the AHEP.

## 1.1 CEMD Structure



## 1.2 Project Background

Aberdeen Harbour Board is developing new facilities in Nigg Bay. The location of Nigg Bay, relative to the existing harbour, is illustrated in Figure 1.1. The layout of the proposed harbour is illustrated in Figure 1.2.

The purpose of the project is to expand and diversify the capabilities and facilities provided by the existing harbour. More specifically, the development comprises the following elements:

<sup>1</sup> Waterman and FugroEMU (2015), Aberdeen Harbour Expansion Project Environmental Statement

- Dredging the existing bay to design depths varying from -9 to -10.5m Chart Datum, inclusive of sand/alluvium, glacial till and rock materials;
- Profiling the existing Southern slopes of the bay to absorb and reduce wave reflection within the central berthing and approach channel areas of the development;
- Construction of two rubble mound breakwaters 634 metres (North Breakwater) and 640 metres (South breakwater), to protect the new facilities from the wave climate;
- Construction of approximately 886m of closed and 538m of open quays to provide a combined total of over 1424m of quayside capable of berthing vessels;
- Land reclamation activities to provide a paved area immediately to the rear of the quayside installations. This will use materials recovered from dredging operations supplemented by imported materials;
- Provision of ancillary welfare accommodation, quayside furniture and water tank installations for the facilities operational stages; and
- Numerous stages of off-site highway work to allow free flowing traffic around the new facilities with improved access means for Heavy Goods Vehicles (HGV).

Further details of the project are as outlined in the CMS.

### 1.3 Purpose of the CEMD

In 2015 an Environmental Impact Assessment (EIA) was undertaken in support of formal consent applications. The resulting ES identified a range of likely effects of terrestrial and marine activities that required further management through the production of an overarching CEMD.

The purpose of this report is to establish a set of site specific procedures capable of meeting [KH1]statutory requirements with respect to the management of construction activities throughout the AHEP. These procedures are presented in the form of a CEMD and are designed to reduce the potential environmental impact of construction activities on the surrounding marine and terrestrial environment.

The term ‘construction’ in this CEMD includes all physical work undertaken to implement the project, including but not limited to activities such as site preparation, demolition, material delivery, dredging and disposal, excavated material removal, waste removal and all related engineering activities.

The measures as outlined in this document will be applied to the construction phase of the works, in full, to enable the works to be undertaken in a sustainable, efficient and cost-effective manner.

Dragados will comply with the requirements of the CEMD, the appendices and any other relevant legislation referenced in this document or otherwise, or any legislation amending or replacing it.





Figure 1.1: Aerial image of Nigg Bay relative to the existing Aberdeen Harbour

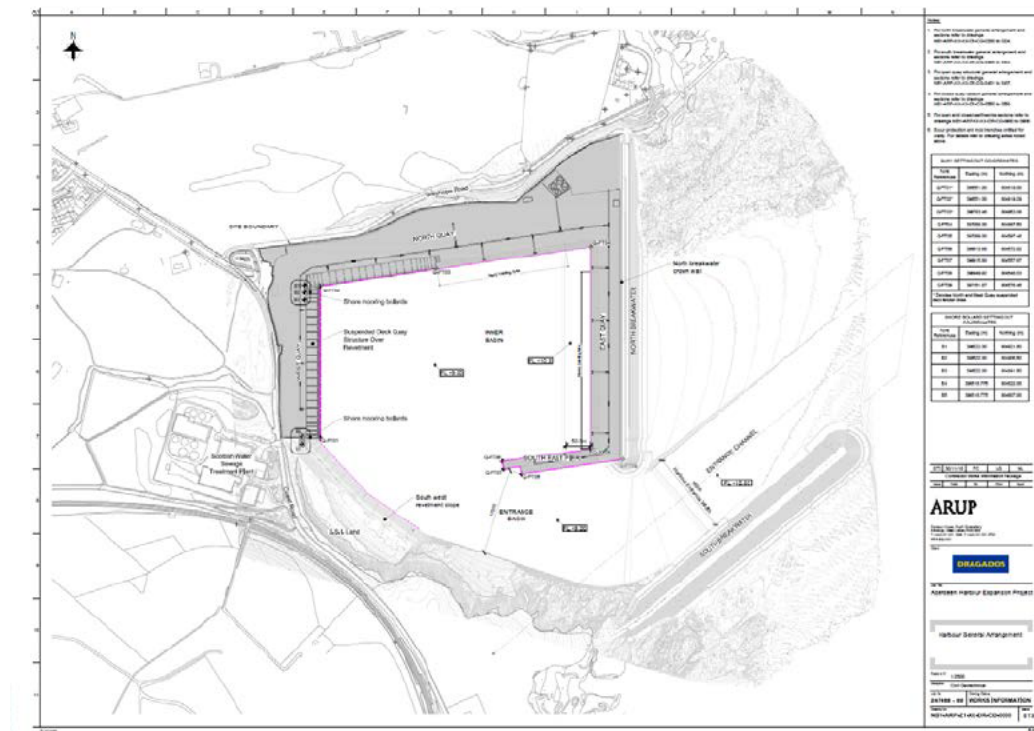


Figure 1.2: Proposed harbour layout

## 1.4 General Requirements

The site-specific CEMD has developed procedures for the following:

- To record and deliver the environmental commitments, objectives and targets in a way that allows transparent monitoring and auditing of the project's environmental performance by Dragados and the Project Director;

- To identify the project management structure and clearly identify the roles and responsibilities with regard to managing and reporting on the construction phase environmental aspects;
- A method for establishing a check list of measures which must be integrated within the overall Environmental Management System (EMS);
- To demonstrate Dragados' ability to fully integrate the construction activities with the requirements of environmental legislation, policy, guidance and statutory environmental authorities and third parties ;
- Detail how sensitive areas of the site are to be protected during the works and the method for monitoring protection throughout the works; and
- Include procedures for dealing with emergencies and non-compliances and communication of these to the relevant statutory environmental authorities.

The CEMD is considered to be a live document for use by Dragados and contractors, providing an environmental checklist and compliance toolkit during planning, design and construction.

A review of the CEMD will be undertaken on a case to case basis as outlined within the individual Construction Environmental Management Plans (CEMPs). Any changes to the documents will follow the change management process (see Section 2.11).

## 1.5 Environmental Plan

### 1.5.1 Overview

An Environmental Plan to cover the AHEP has been developed in order to manage environmental compliance on site, and reduce the potential for negative environmental impacts associated with the development. The Environmental Plan is included with the CEMD suite of documents. The Plan has been developed in line with the requirements of the overarching Dragados EMS, which is ISO 14001:2004 accredited.

### 1.5.2 Legislative Compliance

The Environmental Plan provides an overview of the methodology for the identification and review of legal and voluntary requirements relating to the projects, and the actions that need to be taken in order to achieve and maintain legislative compliance. The Plan also details the environmental commitments made by Dragados, in order to go beyond compliance to improve environmental performance.



### 1.5.3 On Site Operations

The Environmental Plan provides information regarding the management of operations on site, in order to ensure the requirements of the licences, consents and CEMD are implemented. The significant environmental aspects of the project are identified within the Plan, alongside the requirements for the management of these. General and procedural guidance for the following is detailed within the Plan:

- Allocation of resources and responsibilities;
- Evaluation of competence for staff and contractors;
- The provision of training, including toolbox talks;
- Management of internal and external communications;
- Management of documentation and records;
- Operational controls for managing potential environmental impacts;
- Emergency planning, preparedness and response; and
- Version control, and updates to the Environmental Plan.

### 1.6 Outline of the CEMD

The individual CEMPs are to be considered ‘live’ documents by Dragados and contractors, something that will be kept under constant review and added to as the construction of AHEP progresses. Reports and relevant documents will be added to the appendices as required such as ongoing monitoring reports produced by the Environmental Clerk of Works (ECoW).

The following CEMPs have been included in this document

- Chapter 3 Construction Method Statement
- Chapter 4 Archaeology Plan
- Chapter 5 Construction Lighting Management Plan
- Chapter 6 Construction Traffic Management Plan
- Chapter 7 Dredging and Dredge Spoil Disposal Management and Monitoring Plan
- Chapter 8 Fish Species Protection Plan
- Chapter 9 Habitat Management Plan and Otter Protection Plan
- Chapter 10 Landscape Mitigation Compensation Plan
- Chapter 11 Marine Mammal Mitigation Plan
- Chapter 12 Marine Invasive Non-Native Species and Biosecurity Management Plan
- Chapter 13 Noise and Vibration Management Plan

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- Chapter 17 Vessel Management Plan
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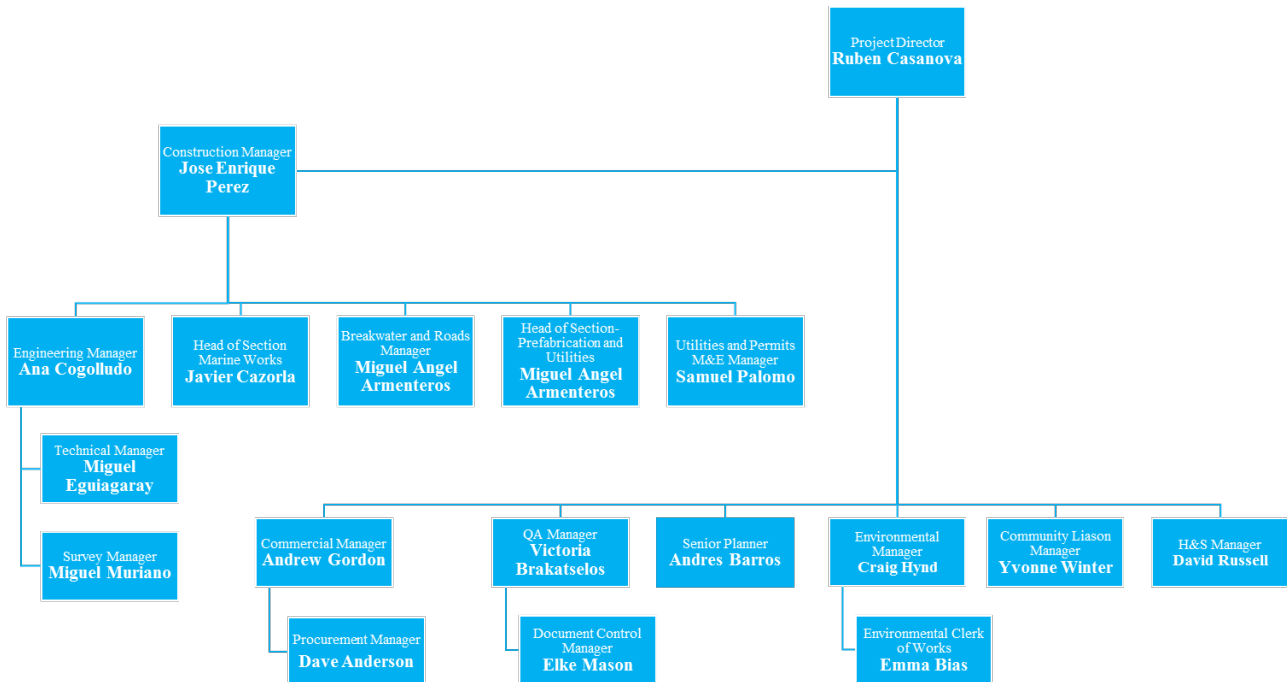
## Chapter 2

# Roles and Responsibilities of Staff

## 2 Roles and Responsibilities of Staff

Descriptions of individual environmental management responsibilities are described in the following sections.

### 2.1 Organogram



### 2.2 Project Director

The Project Director will have responsibility for managing the Project within the agreed environmental constraints in conjunction with all other necessary management processes.

### 2.3 Construction Manager

The Construction Manager will be responsible for the management of all construction related activities for the AHEP. The Construction Manager will oversee and liaise with the Environmental Manager, Site Waste Manager, Construction Marine Coordinator and the Traffic Safety and Control Officer.

The Construction Manager will also be responsible for the implementation and review of a number of CEMPs, and the specific responsibilities relating to the Construction Manager for each of the CEMPs are as outlined in the individual plans.

## **2.4 Environmental Manager**

The Environmental Manager will be responsible for environmental management at the AHEP site, including the implementation of the Environmental Plan, and providing relevant training relating to staff and contractors regarding environmental risks at the AHEP site.

The Environmental Manager will liaise with the Project Director on an on-going basis and report via the progress meetings on the implementation of the CEMD and any on-going issues.

## **2.5 Health and Safety Manager**

The Health and Safety Manager will be responsible for managing health and safety compliance at the AHEP site and providing relevant training to staff and contractors working at the site.

This will include the implementation and review of a number of CEMPs. The specific responsibilities relating to the Health and Safety Manager for each of the CEMPs are as outlined in the individual plans.

## **2.6 Site Waste Manager**

The Site Waste Manager will be responsible for waste management at the AHEP site, in accordance with the requirements of the Waste Management Plan.

## **2.7 Construction Marine Coordinator**

The Construction Marine Coordinator (CMC) will be responsible for the implementation, review and update of the Vessel Management Plan.

## **2.8 Traffic Safety and Control Officer**

The Traffic Safety and Control Officer (TSCO) will be responsible for the implementation, review and update of the Traffic Management Plan.

## **2.9 Environmental Clerk of Works**

The ECoW will be responsible for managing particular construction activities that may otherwise present an environmental risk such as the need for protected species licenses or surveys. Further details are provided in the Habitat Management Plan.

The ECoW will have the authority to halt construction tasks as necessary.



## **2.10 Suppliers and Subcontractors**

All subcontractors will be required to work in accordance with this CEMD. They will receive training from the Environmental Manager prior to the commencement of any works on site, and will confirm during their induction that they understand these requirements.

Suppliers will be required to demonstrate that they have an Environmental Management System (EMS) in place in order to manage their legislative compliance and environmental impacts.

## **2.11 Review and Change Management Procedure**

The CEMP documents will be subject to regular review and change in accordance with the Dragados change management procedure. Please see the Environmental Plan Section 7.1 for further details regarding the Change Management Procedure.

## **2.12 Communication with Statutory Consultees**

Outwith the change management process, Dragados will also invite statutory consultees to regular meetings (monthly to begin with, with frequency reducing to quarterly). These meetings will include agenda items such as proposed changes to CEMPs, and updates on construction activity, issues encountered and how these have been addressed.