



Section 177 AE Application

Construction Environmental Management Plan

Fáilte Ireland

Platforms for Growth

Facility Centre for Water Based Activities

MAGHERABEG

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Document Prepared by	Maurice Costello EE
Document Approved by	Diarmuid Reilly – Senior Executive Engineer

1.0 Introduction

This Construction Environmental Management Plan (CEMP) defines for officials and the general public how the construction over the coming period will happen, the procedures and the methods that will be used for the construction of the proposed development and how these will avoid and reduce potential impacts that could arise. Some impacts arise from the existence and operation of the project – but experience has shown that many impacts can also arise during the construction process – without the preparation and implementation of a well-thought-out CEMP. This document describes the practicalities of putting this into practice during construction.

It outlines the construction sequence including enabling works, excavation, utilities, building construction, infrastructure and building fit-out. It describes the key methods employed for both construction and associated protection of the environment during each stage.

1.1 Environment Contacts and Audits

An environmental officer will be appointed by the Contractor to act as main point of contact for environmental matters. This person will have the necessary qualification / expertise / experience to allow him / her discharge this role. In the event that contact is either required with the Kerry Co. Co. or other relevant authorities.

The environmental officer will have specific responsibility for environmental matters and, in addition, make that person available to carry out regular environmental audits of the construction site if required.

2.0 Project Description

2.1 Introduction

The facilities structure will contain several resources such as indoor and outdoor showers, serviced toilets, changing cubicles, public lockers as well as external and internal seating. Additional amenities included in the design plan is for an accessible parking area and the creation of a pedestrian only zone around the new facility and to the entrance to the beach.

Additional to the main facility is the installation of civil works such as wastewater treatment plant including percolation area, site drainage works, fencing and ancillary development related to hardstanding areas for emergency vehicles & lifeguard hut.

2.2 Construction

Construction sequence including enabling works, excavation, utilities, building construction, infrastructure and building fit-out will be completed within 12 months. All works will take place within the identified red line boundary – ensuring all best practice construction measures (outside of those stipulated in this CEMP) are followed. Additionally, all measures contained within this document must be complied with and a record of the implementation/compliance with these measures be kept should a compliance report be requested.

3.0 Control Measures

The CEMP contains details to minimise effects to a range of environmental factors including the following key factors relevant for this assessment:

- Good housekeeping
- Soils and excavation
- Dust and air quality controls
- Noise
- Temporary construction fuel oil and chemical handling
- Waste
- Site lighting

3.1 Good Housekeeping

The following mitigation measures relating to the protection of biodiversity will apply during the construction phase of the proposed project:

- Good housekeeping is an important part of good environmental practice and helps to maintain a more efficient and safer site. The site should be tidy, secure, and have clear access routes that are well signposted. The appearance of a tidy, well-managed site can reduce the likelihood of theft, vandalism, complaints and/or specific hazards that could affect the safe operation of the other businesses in the area, such as bird hazards and wind-blown litter.
- There will be restricted access from the site to the surrounding sensitive habitat of dunes and beach during the construction phase, via informative signage and fencing, for construction workers and all heavy machinery.
- As outlined in the fourth edition of the Construction Industry Research and Information Association's (CIRIA's) 'Environmental good practice on site guide' (C741), when considering good housekeeping, the Contractor will implement the following steps:
 - Adequately plan the site with designated areas of materials and waste storage;
 - Segregate different types of waste as it is produced and arrange frequent removal;
 - Keep the site tidy and clean;
 - Ensure that no wind-blown litter or debris leaves the site, use covered skips to prevent windblown litter;
 - Keep hoardings tidy – repair and repaint when necessary, removing any fly posting or graffiti;
 - Frequently brush-clean wheel washing facilities;
 - Keep roads free from mud by using a road sweeper; and,
 - Ensure site is secure.
- Routine practice and procedures to prevent pollution of the environment will apply. These include:
 - During the construction stage, construction and site management practices will be implemented by the contractor;

- Silt fences and grassed swales/catchment ditches will be constructed around the perimeter of work areas, compounds, storage yards and stockpile areas.
- All material including oils, solvents and paints will be stored within temporary bunded areas or dedicated bunded containers;
- Refuelling will take place in a designated bunded area away from surface water gullies, drains and water bodies, in the event of refuelling outside of this area, fuel will be transported in a mobile double skinned tank;
- All machinery and plant used will be regularly maintained and serviced and will comply with appropriate standards to ensure that leakage of diesel, oil and lubricants is prevented;
- Excavated material will be segregated into inert, non-hazardous and/or hazardous fractions;
- The excavation and handling of inert material will be carefully managed in such a way as to prevent any potential negative impact on the receiving environment.

3.2 Soils and excavation

The following mitigation measures relating to the protection of soils and excavation will apply during the construction phase of the proposed development:

- The construction works will be carried out with the least feasible disturbance of soils, thereby minimising the amount of excavated soil. The inert excavated soil will be reused within the project area wherever possible.
- Where applicable, design measures will be put forward to minimise the excavation of soil that cannot be reused due to their mechanical properties or contamination;
- All waste produced as part of the proposed development will be dealt with in accordance with the relevant waste and environmental management legislation;
- Where soil stripping and excavation occurs, the resulting excavated soil fractions will be segregated into material that can be disposed of in the appropriate manner in accordance with Waste Management legislation;
- Excess topsoil, inert soil, and all hazardous soil waste will be separately removed off site to an appropriately licenced facility by a licensed contractor;
- Temporary storage of soil will be carefully managed to prevent environmental impact, impact on soil structure and generation of dust. e.g. storing stockpiles away from any open surface water drains, managing height and slope of stockpile and minimising soil movement.
- A suitable area will be allocated for temporary stockpiling of excavated materials pending removal for reuse which will be located away from any surface water bodies or other sensitive receptors. A suitable area will also be allocated for carrying out bedrock crushing activities if required. Any contaminated soil or suspected contaminated soil will be isolated from clean soil pending testing to confirm its classification. Contaminated material stockpiles, if required, will be bunded to ensure any liquid run-off is retained prior to removal from site.
- Soils and bedrock taken off site will be removed and disposed of by contractors licensed under the Waste Management Act of 1996 and amendments.

- Any temporary stockpiles will comply with setback conditions outlined in the requirements of Inland Fisheries Ireland (2016) “Guidelines on protection of fisheries during construction works in and adjacent to waters”.
- Non-hazardous waste exceeding inert Waste Acceptance Criteria (WAC) will be sent to a licensed non-hazardous landfill for disposal/recovery;
- Construction personnel will be required to wear appropriate Personnel Protection Equipment (PPE) and carry out other protective measures outlined in this CEMP when handling hazardous waste;
- All associated hazardous waste residuals will be stored within temporary bunded storage areas prior to removal by an appropriate EPA approved waste management contractor for off-site treatment/recycling/disposal. Any other building waste will be disposed of within on-site skips for removal by a licensed waste contractor;
- For the importation of topsoil and imported good-quality granular soils materials, the material will be sourced from nearby sites where possible, in order to reduce transport distances;
- To minimise any impact on the underlying subsurface strata from material spillages, fuels, oils, solvents and paints used during construction will be stored within specially constructed bunded areas or within bunded containers;

3.2.1 Hydrology, Water Quality

The following mitigation measures relating to the protection of water quality will apply during the construction phase of the proposed development:

- The Contractor will ensure that water containing silt will be treated on site (via silt traps on existing site drainage system) to ensure effective silt removal.
- Excavations will remain open for as little time as possible before the placement of fill/cover. This will help to minimise potential for water ingress into excavations.
- Weather conditions shall be taken into account when planning construction activities to minimise risk of run-off from the site and the appropriate distance of topsoil piles surface water drains to be maintained.
- Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles, will take place away from surface water gullies or drains;
- Silt and sediment barriers will be installed at the perimeter of earthworks construction areas to limit transport of erodible soils outside of the site; and
- Where applicable, all excavated and/or stripped surfaces will be covered with a required depth of topsoil to encourage the growth of the vegetation after the construction stage, in order to eliminate erosion and negative visual impacts.
- The contractor will be required to implement industry best practice pollution prevention measures in accordance with guidance documents (for example CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites), during both construction and operation in order to control the risk of pollution to surface waters.
- All personnel working on the site shall be suitably trained in the implementation of the procedures. In the event of a spillage drainage from bunded areas will be inspected and

diverted for collection and safe disposal if required. The contractor company will ensure adequate spill clean-up materials will be available onsite at all times.

3.3 Dust and Air Quality Controls

The contractor is required to implement the following measures in relation to air quality and climate during construction:

- The coordination, implementation and ongoing monitoring of dust produced by site activities. The key aspects of controlling dust are listed below:
 - The development of a documented system for managing site practices with regard to dust control;
 - Spraying of exposed earthwork activities and site haul roads during dry weather; o Provision of wheel wash at exit points;
 - Covering of stockpiles;
 - Control of vehicle speeds, speed restrictions and vehicle access; and
 - Sweeping of hard surfaced roads;
 - Erection of a 2.4m high hoarding will be provided around work areas where allowable to minimise the dispersion of dust from working areas;
 - Stockpiles will be located as far away as possible from sensitive receivers and covered/dampened during dry weather;
- Generators will be located as far away as practicable from sensitive receivers;
- To prevent the harmful emissions from vehicle exhausts, on-site and delivery vehicles will be prevented from leaving engines idling, even over short periods.

Hard surface roads will be swept to remove mud and aggregate materials from their surface while any un-surfaced roads will be restricted to essential site traffic only apart from the contractor's car park which will be hardcore only.

Furthermore, any road that has potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and / or windy conditions.

Vehicles using site roads will have their speed restricted and this speed restriction must be enforced rigidly. On any unsurfaced site road, this will be 20kph and on hard surfaced roads as site management dictates.

Vehicles delivering material with dust potential (soil, aggregates) will be enclosed or covered with tarpaulin at all times to restrict the escape of dust.

Public roads outside the site will be regularly inspected for cleanliness and cleaned as necessary.

Material handling systems and stockpiling of materials will be designed and laid out to minimise exposure to wind. Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.

During movement of materials both on and off site, trucks will be stringently covered with tarpaulin at all times. Before entrance onto public roads, trucks will be adequately inspected to ensure no potential for dust emissions.

To minimise effects to the climate through harmful emissions, the following controls shall be put in place:

- On-site and delivery vehicles will be prevented from leaving engines idling, even over short periods.
- Material wastage due to poor timing or over ordering on site will be minimised to reduce the embodied carbon footprint of the site.
- The travel distance required to complete the delivery of material and supplies shall be taken into account during procurement and minimised where possible.

At all times, the measures used to control dust will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, movements of materials likely to raise dust will be curtailed and satisfactory procedures implemented to rectify the problem before the resumption of construction operations.

3.4 Noise

There is no published statutory Irish guidance relating to the maximum permissible noise levels that may be generated during the construction phase of a project. Local authorities normally control construction activities by imposing limits on the hours of operation and consider noise limits at their discretion.

The Contractor will implement best practice and reference BS 5228-1:2009+A1:2014 and BS 5228-2:2009+A1:2014, which offer detailed guidance on the control of noise and vibration from demolition and construction activities. Specific examples of measures included in the guidance are:

- Limiting the hours during which site activities likely to create high levels of noise or vibration are permitted;
- Establishing channels of communication between the contractor/developer, Local Authority and residents;
- Appointing a site representative responsible for matters relating to noise and vibration;
- Monitoring levels of noise and/or vibration during critical periods and at sensitive locations, and;
- All site access roads will be kept even so as to mitigate the potential for vibration from lorries.

3.5 Temporary Construction Fuel Oil and Chemical Handling

To minimise any impact from material spillages appropriate bunding shall be provided for all tank and drum storage areas. These storage areas shall be rendered impervious.

The Contractor shall ensure appropriate signage is in place at each dedicated storage unit. The amount of chemicals stored will be kept to a minimum. All chemical containers will be labelled and copies of SDS sheets shall be maintained in the storage unit.

In the event of a spillage, drainage from bunded areas shall be inspected and diverted for collection and safe disposal if required. The integrity and water tightness of all bunding structures shall be tested and demonstrated. All fuel oil areas will have an appropriate spill apron.

With respect to portable equipment containing fuel oil, drip trays or approved equipment shall be used. Adequate spill clean-up materials will be available on site at all times.

Refuelling of construction vehicles, and the addition of hydraulic oils or lubricants to vehicles, will take place in a designated area (or where possible off site) which will be away from surface water gully's or drains. In the event of a machine requiring refuelling outside of this area, fuel will be transported in a mobile double-skinned tank. An adequate supply of spill kits and hydrocarbon adsorbent packs will be stored in this area and made available. All relevant personnel will be fully trained in the use of this equipment. Guidelines such as *'Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors'* (CIRIA 532, 2001) and other CIRIA guidelines regarding good practice (CIRIA 692, 2011; CIRIA 715, 2012) will be complied with.

A suitable risk assessment for wet concreting will be completed prior to works being carried out which will include measures to contain discharge of alkaline waste waters to a holding tank for discharge off site.

In the case of drummed fuel or other chemicals which may be used during construction containers should be stored in a dedicated internally bunded chemical storage cabinet and labelled clearly to allow appropriate remedial action in the event of a spillage.

3.6 Waste

Collection, segregation and disposal of wastes are the responsibility of the Contractor.

The contractor will be required to segregate all wastes generated onsite and arrange for the collection and recycling, recovering and/or disposal (as appropriate) of the waste by suitably permitted/licenced contractors.

All hazardous waste should it arise, will only be disposed through approved and licensed facilities and by an approved vendor.

All non-hazardous waste will be transported offsite by permitted waste hauliers and recycled, recovered and/or disposed of at permitted/licensed facilities.

The Contractor will be responsible for the preparation of all waste handling documentation and costs associated with the recycling, recovery and disposal of all hazardous and non-hazardous waste. A copy of all waste documentation (waste transfer notes, weighbridge dockets, collection, permits, facility permits/licenses etc.) must be kept on site at all times.

3.7 Site lighting

In order to minimise the extent of light spill onto perimeter vegetation during night-time works (if necessary), all lights that are pole mounted will be directional and/or cowled to ensure that light is directed downward and inwards. Lights will be programmed or otherwise to be off unless required. The environmental officer will check the lighting pattern once assembled and will make recommendations if perimeter light levels exceed 0.1 lux.

The use of artificial lighting during the construction phase in this area of the site will be minimised and where possible their use will comply with guidelines, Bats and Lighting in the UK. Bat Conservation Trust, UK (report available from www.bats.org.uk (BCT 2007a), on appropriate light designs and positioning to minimise the impact on bats.