Appropriate Assessment Report

Assessment of the likely effects of proposed works on the foreshore at Cobh, as part of the Cork Lower Harbour Main Drainage Project, on the Conservation Objectives of the Cork Harbour SPA (Site Code: 004030) and the Great Island Channel SAC (Site Code: 001058)

Introduction

Irish Water has submitted an application for a Foreshore Licence to facilitate proposed works on the foreshore in Cork Harbour, as part of the Cork Lower Harbour Main Drainage Project.

The Cork Lower Harbour Main Drainage Project is a project for the provision of collection systems and wastewater treatment facilities in the Cork Lower Harbour area. The Project includes the population/industrial centres of Cobh, Carrigaline (including Crosshaven), Passage West/Monkstown (including Glenbrook) and Ringaskiddy (including Shanbally and Coolmore).

The existing sewer network serving the Lower Cork Harbour area comprises mainly combined sewer systems. Wastewater from Cobh, Carrigaline, Passage West/Monkstown and Ringaskiddy is currently discharged untreated into the Harbour. As part of the project the wastewater from these population centres will, following upgrading of the sewerage network including pump stations and outfalls, be forwarded for treatment at a new Wastewater Treatment Plant located at Shanbally. The treated effluent will be then discharged via the existing long sea outfall close to Dog Nose Point in Cork Harbour.

Combined sewer overflows will be located in the collection system at individual pumping stations to prevent localised flooding in the event of a peak rainfall event. The provision of duty/standby pumping arrangements in each pumping station will minimise the potential for the discharge of raw sewage except in the event of a power outage (in which case the discharge will be screened before entering the waterbody). In this event the pumping stations will, at a minimum, incorporate facilities to allow the connection of standby generators.

This application is for the Cobh element of the overall project and includes:

- An estuary crossing consisting of 2 pumped rising mains between Cobh and Monkstown. It is proposed that these will be constructed using Horizontal Directional Drilling under the seabed. The pipeline will be constructed from a launch site in Cork Dockyard to a temporary reception site adjacent to the Glen Road, Monkstown. The pipeline will then be permanently intercepted at an interception manhole at Marine Villas (adjacent to the R610) from where flows will be connected to the Monkstown wastewater network by a gravity wastewater pipeline.
- Installation of 6 No. outfalls to act as combined sewer outfalls (CSO) as part of the collection network. All proposed CSO’s will discharge to below the MLWS mark.
- The removal and making redundant of 14 No. existing structure which will no longer convey any flows

A key objective of the proposed works is the discontinuation of the discharge of untreated sewage to the lower harbour area in the vicinity of Cobh with the flows being pumped across the estuary to Monkstown and transferred to the new WWTP at Shanbally for treatment. The
CSO’s will only discharge during emergency flow conditions and the discharges from these outfalls would be significantly reduced.

The location and details of the proposed works are shown in the following drawings submitted by the applicant:

- Drawing No. 20506-FL-CH-100, “Outfall Location Map”, dated 29/07/16
- Drawing No. 20506-FL-CH-303 “Temporary Works and Access Area”, dated 29/07/16

**Combined Storm Overflows:**

- Drawing No. 20506-FL-CH-101, “North Cobh Overflow SW001-NCobh Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-102 “North Cobh Overflow SW001-NCobh, Existing Outfall Detail”, dated 29/07/16
- Drawing No. 20506-FL-CH-104, “Rushbrooke Overflow C-12 Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-105 “Rushbrooke Overflow C-12 Proposed Outfall Detail”, dated 29/07/16
- Drawing No. 20506-FL-CH-106, “Dock Cottages Overflow SW-002 Cobh Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-107, “Dock Cottages Overflow SW-002 Cobh Existing Outfall Detail,” dated 29/07/16
- Drawing No. 20506-FL-CH-109, “Pebble Beach Overflow C-11 Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-110, “Pebble Beach Overflow C-11 Proposed Outfall Detail” dated 29/07/16
- Drawing No. 20506-FL-CH-118, “Station Car Park Overflow C-04 Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-119, “Station Car Park Overflow C-04 Existing Outfall Detail”, dated 29/07/16
- Drawing No. 20506-FL-CH-120, “Station Car Park Overflow C-04 Proposed Outfall Detail” dated 29/07/16
- Drawing No. 20506-FL-CH-122, “Old Town Hall Overflow SW-007 Cobh, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-123, “Old Town Hall Overflow SW-007 Cobh, Existing Outfall Detail”, dated 29/07/16
- Drawing No. 20506-FL-CH-124 “Old Town Hall Overflow SW-007 Cobh, Proposed Outfall Detail” dated 29/07/16

**Estuary Crossing**

Removal of Redundant Structures

- Drawing No. 20506-FL-CH-103 “Ballynoe C-01 Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-111 “Whitepoint Drive “A”- C10, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-112 “Whitepoint Drive “B”- C09, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-113 “Whitepoint Drive “C”- C07, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-114 “Whitepoint Drive “D”- C08, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-115 “Whitepoint Moorings “A”- C06, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-116 “Railway Cottages SW003 - Cobh”, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-117 “Whitepoint Playground SW004 - Cobh”, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-121 “Station Carpark C-03”, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-125 “Lynch’s Quay SW014-Cobh”, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-126 “Sirius Wharf SW020 - Cobh”, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-127 “Connolly Street “A” SW009-Cobh”, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-128 “Connolly Street “B” SW010-Cobh”, Foreshore Licence Map” dated 29/07/16
- Drawing No. 20506-FL-CH-129 “Pilot’s Pier SW011 - Cobh”, Foreshore Licence Map” dated 29/07/16

No works on the foreshore are proposed in the case of:

- SW001 “North Cobh Overflow” (see Drawing No. 20506-FL-CH -101 and Drawing No. 20506-FL-CH -102) – this existing structure will serve as a combined sewer overflow for the Carrigaloe Pumping Station
- SW004 “ Whitepoint Playground” (see Drawing No. 20506-FL-CH -117) – This structure will be made redundant as result of the works
- C-03 “Station Car Park” (see Drawing No. 20506-FL-CH -121)- This structure will be made redundant as result of the works
- SW014 “Lynch’s Quay (see Drawing No. 20506-FL-CH -125) – This structure will be made redundant as result of the works

Works on the foreshore will be required in the case of all other outfalls / structures, the locations of which are shown in Drawing No. 20506-FL-CH -100 “Outfall Location Map”, dated 29/07/16
It is anticipated that the proposed estuary crossing will take circa 6 months to complete, works where combined storm overflows are to be constructed to below the MLWS mark are anticipated to take circa 10 weeks each to complete while it is anticipated that works at the other locations will take circa 2 week to complete at each location.

There are no coastal modifications, dredging works or disposal of dredge material arising from the proposed works.

**Natura 2000 sites**

The proposed works are not located within a designated Natura 2000 site. The site of the proposed works is circa 2.0 Km from the nearest boundary of the Cork Harbour SPA (Site Code 004030) and circa 2.0Km from the nearest boundary of the Great Island Channel SAC (Site Code 001058)

**Cork Harbour SPA**

The Cork Harbour SPA site comprises most of the main intertidal areas of Cork Harbour and, in addition to Monkstown Creek, includes all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Lough Beg, the Owenboy River Estuary, Whitegate Bay and the Rostellan and Poulnabibe inlets.

Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, there are at least 18 wintering species that have populations of national importance, as well as a nationally important breeding colony of Common Tern.

The Conservation Objectives for this SPA are: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- Little Grebe (*Tachybaptus ruficollis*) [Wintering]
- Great Crested Grebe (*Podiceps cristatus*) [Wintering]
- Cormorant (*Phalacrocorax carbo*) [Wintering]
- Grey Heron (*Ardea cinerea*) [Wintering]
- Shelduck (*Tadorna tadorna*) [Wintering]
- Wigeon (*Anas penelope*) [Wintering]
- Teal (*Anas crecca*) [Wintering]
- Pintail (*Anas acuta*) [Wintering]
- Shoveler (*Anas clypeata*) [Wintering]
- Red-breasted Merganser (*Mergus serrator*) [Wintering]
- Oystercatcher (*Haematopus ostralegus*) [Wintering]
- Golden Plover (*Pluvialis apricaria*) [Wintering]
- Grey Plover (*Pluvialis squatarola*) [Wintering]
- Lapwing (*Vanellus vanellus*) [Wintering]
- Dunlin (*Calidris alpina*) [Wintering]

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• Black-tailed Godwit (*Limosa limosa*) [Wintering]
• Bar-tailed Godwit (*Limosa lapponica*) [Wintering]
• Curlew (*Numenius arquata*) [Wintering]
• Redshank (*Tringa totanus*) [Wintering]
• Black-headed Gull (*Chroicocephalus ridibundus*) [Wintering]
• Common Gull (*Larus canus*) [Wintering]
• Lesser Black-backed Gull (*Larus fuscus*) [Wintering]
• Common Tern (*Sterna hirundo*) [Breeding]
• Wetlands

**Great Island Channel SAC**

The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. The site is extremely important for wintering waterfowl and is considered to contain three of the top five areas within Cork Harbour. The site is an integral part of Cork Harbour which is a wetland of international importance for the birds it supports.

The Conservation Objectives for this SAC are:\(^2\) To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

- Mudflats and sandflats not covered by seawater at low tide
- Atlantic salt meadows (*Glauco Puccinellietalia maritimae*)

**Potential Impacts on Natura 2000 sites**

Given the nature, location and scale of the proposed works on the foreshore there will be no direct impact on the habitats within the Cork Harbour SPA or the Great Island Channel SAC. There will be no loss of habitats and no habitat fragmentation.

Accidental spillages of contaminants e.g. fuel oil from machinery and general construction waste into the marine environment during the construction phase could potentially occur. Should such spillages occur, they are likely to be small in scale and localised. Given the location of the work sites and the high volumes of seawater which would dilute any such spillages, significant impacts on habitats and / or species in the Natura 2000 sites are not considered likely. Impacts on water quality during the construction works are not considered likely. During the operation phase of the overall project there will be an overall improvement in water quality in the area as a result of the cessation of discharge of untreated sewage into the lower Cork Harbour area.

Considering the location, nature and scale of the proposed works it can be concluded that they are not likely to result in a significant change in patterns of sediment transport and thus significant changes in patterns of sedimentation or erosion in the area, including within the

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designated Natura sites, are not considered likely. Significant impacts on the habitats within the SAC or SPA as a result in alteration to coastal processes are therefore not considered likely.

Potential impact on overwintering birds within the Cork harbour SPA can be avoided by the timing the works outside the winter season. Notwithstanding this, significant disturbance to overwintering birds is not considered likely given the small area of foreshore involved and the temporary nature of works at each works site. There will be no significant impact on wetland habitats within the SPA. There will be no habitat fragmentation and no direct loss of potential feeding area for overwintering waterbirds within the SPA will occur. There will be no reduction in species density and no changes in key indicators of conservation value within the Natura 2000 sites arising from the proposed works.

It is considered that full implementation of the Mitigation Measures set out in “Report for Appropriate Assessment Screening: Cork Lower Harbour Main Drainage Project Outfall Upgrade and Repair Works”, dated June 2016 and “Appropriate Assessment of Cork Lower Harbour Main Drainage Project – Estuary Crossing by Horizontal Directional Drilling”, dated April 2016, will ensure that the risk of accidental spillage of pollutants is minimised and therefore significant impacts on water / sediment quality within the adjacent Natura 2000 site are not considered likely.

On the basis of the above it considered the proposed works on the foreshore as part of the Cork Lower Harbour Main Drainage Project will not have a significant adverse impact on the Conservation Objectives of the Cork Harbour SPA or the Great Island Channel SAC.

Dr Terry McMahon  
Chair, MLVC  
21 November 2017