MWP

Supporting Information for Screening for Appropriate Assessment

Foreshore Licence Application for Marine Site Investigation Surveys at Dognose, Corkbeg, Whitegate, Co. Cork

Port of Cork Company

February 2025

Contents

Tables

Figures

Project No.	Doc. No.	Rev.	Date	Prepared By	Reviewed By	Approved By	Status
23686	6001	A	June 2023	OS, RP	AR	PC	ISSUE
23686	6001	B	February 2025	WM	KF	KF	ISSUE

MWP, Engineering and Environmental Consultants
Address: Reen Point, Blennerville, Tralee, Co. Kerry, V92 X2TK
www.mwp.ie

QUALITY I.S. EN ISO 9001:2015 NSAI Certified
HEALTH & SAFETY I.S. ISO 45001:2018 NSAI Certified
ENVIRONMENT I.S. EN ISO 14001:2015 NSAI Certified
ENGINEERS IRELAND CPD ACCREDITED EMPLOYER

1. Summary of Findings

1.1 Supporting Information for Screening for Appropriate Assessment

Project Title	Supporting Information for Screening for Appropriate Assessment for the Foreshore Licence Application for Marine Site Investigation Surveys at Dognose, Corkbeg, Whitegate, Co. Cork
Project Proponent	Port of Cork Company
Project Location	Dognose Bank, Corkbeg, Whitegate, Co. Cork
Screening for Appropriate Assessment	The Supporting Information for Screening for Appropriate Assessment is undertaken to determine the potential for likely significant effects of the proposed project, individually, or in combination with other plans or projects, in view of the conservation objectives of the site on a Natura 2000 Site.
Conclusion	It has been objectively concluded during the screening process that the Natura 2000 sites within the zone of influence of the proposed works will not be significantly impacted by the proposed project at Dognose Bank, Corkbeg, Whitegate, Co. Cork These sites are: • Cork Harbour SPA (004030); and • Great Island Channel SAC (001058)

2. Introduction

The Port of Cork Company (PoCC) ('the Applicant') is submitting a Foreshore Licence Application (FLA) for Marine Site Investigation (SI) Surveys (hereafter referred to as the 'proposed works') at Dognose Bank, Corkbeg, Whitegate, Co. Cork (hereafter referred to as 'proposed works site') to the Marine Environment and Foreshore Section of the Department of Housing, Local Government and Heritage (DoHLG&H).

This Supporting Information for Screening for Appropriate Assessment (SISAA) report has been undertaken to determine whether the proposed development are likely to have a significant effect on any Natura 2000 site (i.e., Special Areas of Conservation (SACs) and Special Protection Areas (SPAs)), in view of the sites' conservation objectives.

The Foreshore Licence Application Area (FLAA) lies 300m south of the boundary of the Cork Harbour SPA (Site code: 004030) and is located within 15km of one other Natura 2000 site. The Appropriate Assessment (AA) process will be undertaken by the DoHLG&H. This SISAA Report has been prepared by MWP on behalf of PoCC in accordance with relevant guidance, to inform the AA process.

2.1 Legislative Context

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats and wild fauna and flora by the designation of SACs and the Birds Directive (2009/147/EC)[1] seeks to protect birds of special importance by the designation of SPAs. It is the responsibility of each member state to designate SPAs and SACs, both of which form part of Natura 2000, a network of protected sites throughout the European Community. Further information is available at:

http://ec.europa.eu/environment/nature/legislation/habitatsdirective/

http://www.npws.ie/planning/appropriateassessment/

The current assessment was conducted within this legislative framework and also the Department of Environment Heritage and Local Government (DoEHLG, 2009) guidelines. As outlined in these, it is the responsibility of the proponent of the project, in this case the Applicant, to provide a comprehensive and objective screening for Appropriate Assessment, which can then be used by the competent authority, in order to conduct the Appropriate Assessment (DoEHLG, 2009).

2.2 Stages of Appropriate Assessment

The Appropriate Assessment process is a four-stage process with issues and tests at each stage. The purpose of the screening assessment is to record in a transparent and reasoned manner the likely effects on Natura 2000 sites of any proposed works. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required. The stages are set out in Appendix 1.

[1] This is the codified version of Directive 79/409/EEC as amended (see http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm)

3. Assessment Methodology

3.1 Appropriate Assessment Guidance

This SISAA or Stage 1, has been undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001), the European Commission Guidance '*Managing Natura 2000 Sites*' Brussels, 21.11.2018 C (2018) 7621 final (EC, 2000), and *Appropriate Assessment of Plans & Projects - Guidance for Planning Authorities* prepared by the National Parks and Wildlife Service (NPWS) (DoEHLG, 2009 (rev. 2010) and the *Planning Regulator: - Appropriate Assessment Screening for Development Management, OPR Practice Note PN01* Office of the Planning Regulator, 2021.

3.2 Desktop Study

To complete the SISAA certain information on the existing environment is required. A desk study was carried out to collate available information on the subject site's natural environment. This comprised a review of the following publications, data and datasets:

- Ordnance Survey Ireland (OSI) Aerial photography and 1:50000 mapping;
- Environmental Protection Agency (EPA) Online Mapping Tools;
- NPWS Protected Sites;
- National Biodiversity Data Centre (NBDC) (on-line map-viewer);
- BirdWatch Ireland;
- Teagasc soil area maps (NBDC website);
- Geological Survey Ireland (GSI) area maps;
- '*Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*' (EC, 2019);
- Cork County Development Plan 2022 – 2028; and
- Other information sources and reports listed in Section 5 below and as footnotes throughout the report.

In addition, the Irish Whale and Dolphin Group (IWDG) was contracted by MWP to carry out an Annex IV Species Risk Assessment of the proposed site investigations at Whitegate, Co. Cork. The report is included in as part of the FLA.

4. Screening for Appropriate Assessment

As set out in the NPWS guidance (DoEHLG, 2009), the task of establishing whether a plan or project is likely to have an effect on a Natura 2000 Site is based on a preliminary impact assessment using available information and data, including that outlined above, and other available environmental information, supplemented as necessary by local site information and ecological surveys. This is followed by a determination of whether there is a risk that the effects identified could be significant. The precautionary principle approach is required.

Once the potential impacts that may arise from the proposed works are identified the significance of these is assessed through the use of the following key indicators:

- Habitat loss;

- Habitat alteration;
- Habitat or species fragmentation;
- Disturbance and/or displacement of species; and
- Water quality and resource.

Screening for Appropriate Assessment (Stage 1) determines the need for a full Appropriate Assessment (Stage 2) and consists of a number of steps, each of which is addressed in the following sections of this report:

4.1 Establish whether the proposed remediation works are necessary for the management of a Natura 2000 Site;

4.2 Description of the proposed works;

4.3 Project Characteristics;

4.4 Identification of Natura 2000 Sites potentially affected;

4.5 Identification and description of potential individual and cumulative impacts of the works;

4.6 Assessment of the significance of the impacts on the integrity of Natura 2000 Sites; and

4.7 Conclusion of screening stage

The purpose of the screening assessment is to record in a transparent and reasoned manner the likely effects, on relevant Natura 2000 Sites, of the proposed remediation works.

4.1 Management of Natura 2000 Sites

The proposed works is not connected with or necessary to the conservation management of a Natura 2000 Site.

4.2 Description of the Project

Full details of the scope of work are provided in the Schedule of Works (which accompanies the FLA).

4.2.1 Subject Site Location

The marine SI works proposed by the Applicant, will be undertaken at Dognose Bank, Corkbeg, Whitegate, Co. Cork. The FLAA is circa 98.20 hectares (ha) and is located approximately 1.6km west of Whitegate village. **Figure 4-1** show the location of the proposed works including the FLAA. The proposed marine SI works site is an offshore area to the south-east of Cork Harbour near the mouth of the harbour, along the eastern headland. This area is approximately 16km southeast of Cork City and 3.0 to 3.5km north of Roches Point. Water depth within the proposed marine SI works site is up to 18m deep. The land around the proposed marine SI works site is mainly agricultural and industrial land. The Irving Oil Whitegate Oil Refinery and Bord Gáis Energy Whitegate Power Station is also located on the headland, approximately 0.15 km east of the proposed marine SI works site. It is a busy stretch of water, used by port traffic to access the Cork City docks, Tivoli docks, Ringaskiddy, Cobh and Whitegate oil refinery as well as other smaller harbours and marinas within greater Cork Harbour. Corkbeg Island, a small island, tied to the shore by a short, manmade causeway, and entirely taken up by the storage tanks of the Whitegate Oil Refinery is located directly to the north of the FLAA. A jetty extends northwest wards from Corkbeg Island into the harbour where huge oil tankers berth.

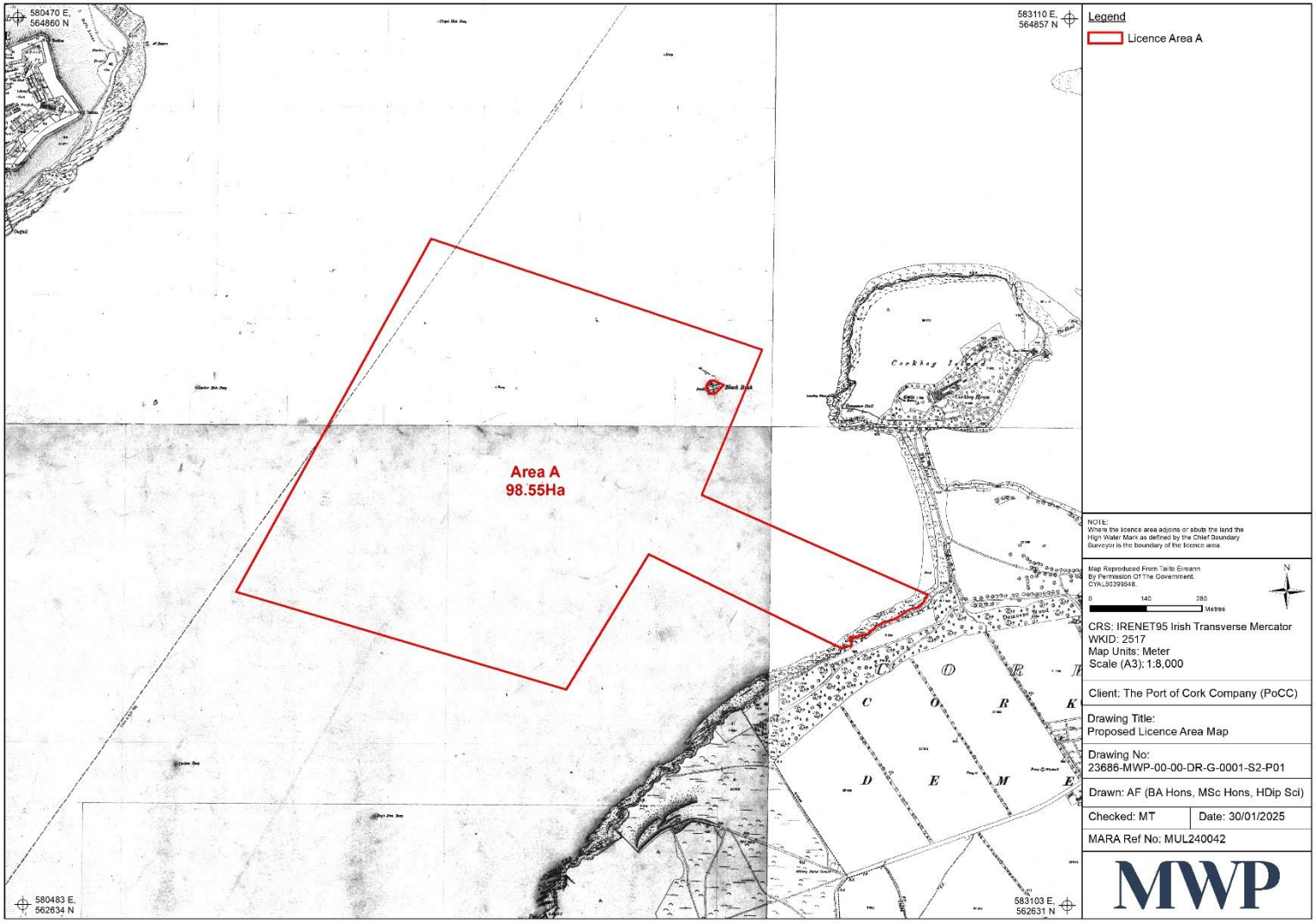

Figure 4-1: Location of Proposed Works including the FLAA

4.2.2 Description of Proposed Marine Site Investigation Works

As discussed above this SISAA Report concerns the proposed marine SI works that are required to inform potential future development in this area as outlined in the Masterplan.

This section provides a high-level overview of the proposed SIs. Full details on the scope of the proposed site investigations is provided within the Scope of Survey Works document submitted in support of this FLA. The intention is to commence the proposed site investigations as soon as feasible following award of a Foreshore Licence, taking into consideration any proposed mitigation requirements. The survey works will most likely be carried out following award of the Foreshore licence and subject to weather conditions and vessel availability. The exact mobilisation dates for the SI activities will not be known until a Foreshore Licence has been secured and the process of procuring the contractor is complete. Most survey activities will only occur over a period of weeks. The time spent at each individual location will be a maximum of 2-3 days for other site investigation activities such as boreholes, Cone Penetrometer Tests (CPTs), grab sampling etc.

The following surveys works are planned:

- Geophysical survey: consist of sub bottom profiler single channel seismic reflection, underwater multichannel analysis of surface waves (UMASW) and seismic refraction surveys. The surveys are likely to take 3 weeks to complete are non-invasive and the interpretation of the geophysical survey forms the basis of the scope of work for geotechnical surveys.
- Geotechnical survey: the purpose of the geotechnical survey is to evaluate the nature and mechanical properties of the superficial seabed sediments along the survey corridor. Approximately 20 boreholes (cable percussive with rotary follow-on) and 20 CPTs will be required in total, along with associated sampling and laboratory testing. The intrusive investigation works are likely to take 12 weeks to complete.
- Environmental surveys including sub-tidal benthic and sub-tidal video surveys. Benthic habitats have a year-round survey period. The epifauna survey period is between April and the end of September. If required algal species survey has a survey period of May – August.
    - Sub-tidal Benthic Survey: used to sample for marine habitats and fauna. Van-Veen grab taken for benthic faunal analysis aid in the classification of submerged habitats.
    - Sub-tidal Video survey: provides footage to aid in the classification of submerged habitats. This is a non-invasive survey for habitats and fauna.
- Intertidal Benthic Survey: a series of cores will be taken in the soft sediment intertidal sections of the survey area. Survey period April to the end of September.
- Marine mammal surveys: Marine mammals are typically surveyed for the shoreline via vantage point surveys. Surveyor uses a telescope and binoculars to scan the study area. This survey will be supplemented by an underwater acoustic survey. Survey for marine mammals may occur year-round taking account of species-specific movements.

Indicative locations of boreholes and CPTs are provided in **Figure 4-2**. It has been assumed that the geotechnical and geophysical surveys will be conducted across the whole of the FLAA.

Dedicated survey vessels will be used which are appropriate to the water depth of the survey area; a vessel with a shallow draft will be utilised for the shallow water survey area. The exact equipment to be used will be confirmed following a tender process to procure the survey contractor. A jack-up platform will likely be used to acquire geotechnical boreholes in the application area. Exact details of the vessel/platform to be used will not be

confirmed until the ground investigation contractor can be confirmed. Positioning at the site will require the use of a tug vessel and the tug will remain on standby for the duration of the drilling operations

The NPWS has produced guidance, *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters* for the operation of geophysical seismic surveys in relation to marine mammals (NPWS, 2014). This methodology is standard practice for conducting geophysical seismic surveys. This guidance has been included as part of the operational methodology in the tender specification document for the marine SI works.

.

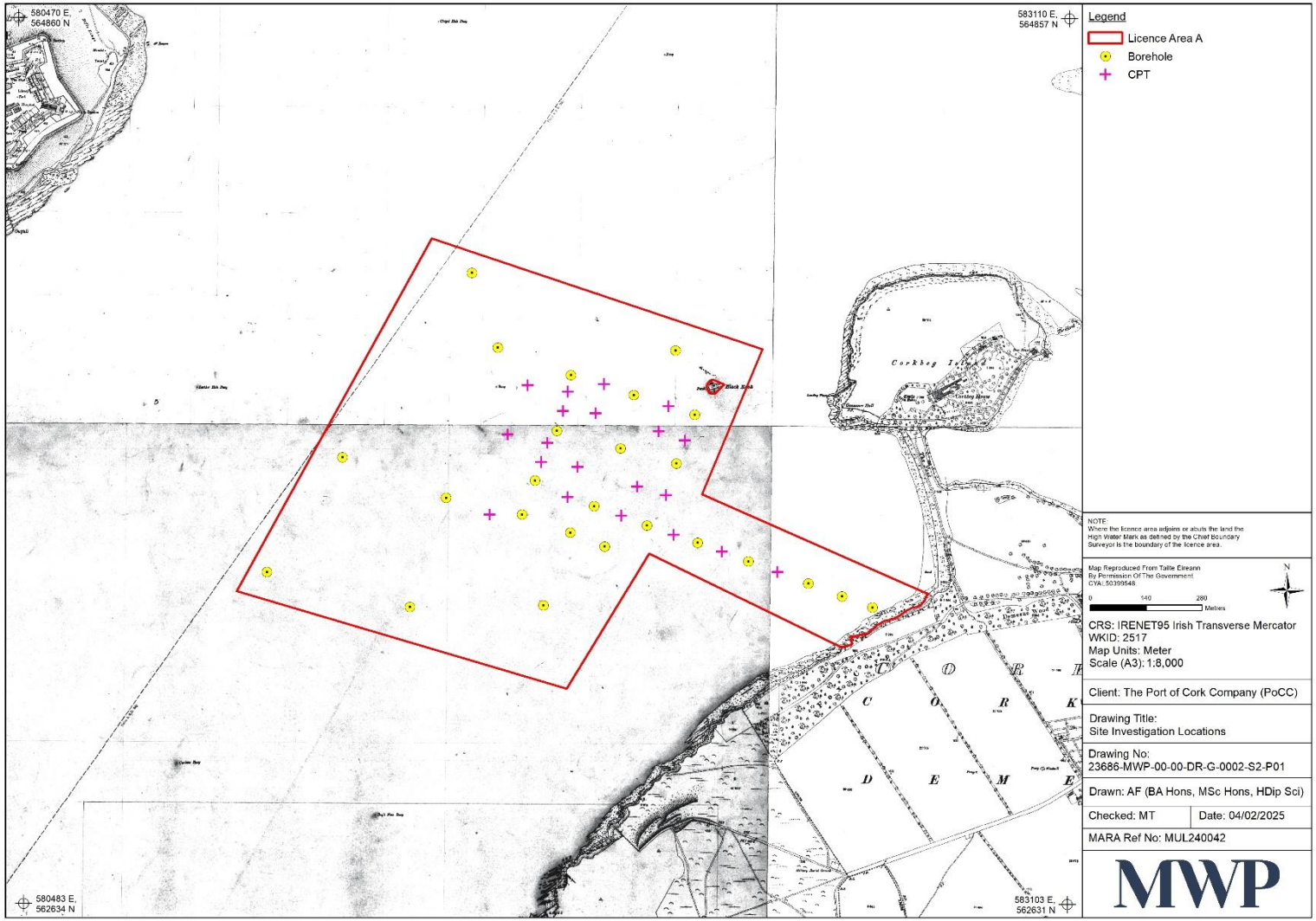

Figure 4-2: Site Layout Map and Indicative Sample Locations

4.3 Characteristics of the Project

The proposal is described in Table 4-1.

Table 4-1: Project Proposal Details

Size, scale, area, land-take	The FLAA is circa 98.20 ha. No land-take is required.
Details of physical changes that will take place during the various stages of implementing the proposal	Geophysical Survey The geophysical survey is non-intrusive and will not result in any physical changes to the area. The findings of the geophysical survey will influence the final location of the offshore ground investigation locations. Geotechnical Survey Each borehole will have a seabed footprint of approximately 0.5m^2 and risings of approximately 11m^3 (assuming a borehole depth of up to 25m) will be dispersed around the drill site as a cuttings pile. The borehole will be left to collapse naturally following completion of drilling where the cuttings are likely to fall back down the hole. The Piezocone penetrometer for CPT shall have a minimum 10 tonne capability and a maximum depth penetration of 6m below seabed. Subtidal Video Survey Non-invasive survey for habitats and fauna will not result in any physical changes to the area. Sub-tidal Benthic Survey Van-Veen grab samples will be taken for benthic faunal analysis for marine habitats and fauna. Intertidal Benthic Survey A series of cores will be taken during in the soft sediment intertidal sections of the survey area. Marine Mammals Both vantage point surveys and underwater acoustic surveys are non-invasive and will not result in any physical changes in the area.
Description of resource requirements for the construction/operation and decommissioning of the proposal (water resources, construction material, human presence etc)	Survey vessels A jack-up platform will likely be used to acquire geotechnical boreholes in the application area. Positioning at the site will require the use of a tug vessel and the tug will remain on standby for the duration of the drilling operations. The SI contractor will be responsible to locate a suitable mobilisation point. No other resources are required.
Description of timescale for the various activities that will take place as a result of	Geophysical surveys are likely to take 3 weeks to complete Geotechnical surveys are likely to take 12 weeks to complete

implementation (including likely start and finish date)	Overall survey duration of approximately 19 weeks.
Description of wastes arising and other residues (including quantities) and their disposal	The survey vessels will operate under international standards The International Convention for the Prevention of Pollution from Ships (MARPOL) with respect to black and grey wastewater and food waste discharges, which are designed to eliminate impacts to coastal waters, and reduce the levels of discharge in offshore waters. Therefore, no effects are expected.
Identification of wastes arising and other residues (including quantities) that may be of particular concern in the context of the Natura 2000 network	There will be no direct emissions to water (seawater or other) during the proposed marine SI works. There will be no waste sediment as the boreholes will be left to collapse naturally following completion of drilling where the cuttings are likely to fall back down the hole. Any general waste arising from the survey activities will be stored onboard temporarily and will be taken off site to a licence/permitted waste facility.
Description of any additional services required to implement the project or plan, their location and means of construction	N/A

4.4 Identification of Natura 2000 Sites

4.4.1 Zone of Impact Influence

The screening stage of AA involves compiling a list of Natura 2000 sites within a zone of potential influence for later analysis which may or may not be significantly impacted upon by the proposed works.

The "Zone of Influence" (ZoI) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities (CIEEM, 2018). This is likely to extend beyond the site where there are ecological or hydrological connection(s) beyond the site boundaries.

The subject site and a distance of 15km is recommended as a potential zone of influence (Scott Wilson *et al*., 2006). However, NPWS guidance (NPWS, 2009) advises that this zone of influence be assessed on a case-by-case basis with consideration of the nature, size, and location of the project, the sensitivities of the ecological receptors and the potential for cumulative effects. As such, Natura 2000 sites beyond 15km may also be considered based on the potential for an ecological and/or hydrological to the project site, bearing in mind the precautionary principle and using the Source-Pathway-Receptor (S-P-R) framework. Similarly, it can be reasonably determined that, in the absence of an appropriate S-P-R model (ecological or hydrological), the ZoI for a project may be significantly less than the 15km radius proposed by Scott-Wilson *et al*., (2006), with recent Office of the Planning Regulator guidance stating this clearly (OPR, 2021). Following this, the potential impacts associated with the proposed works will be identified before an assessment is made of the likely significance of these impacts.

Given that the proposed works are located in a marine environment, there is potential for mobile marine qualifying interests (QI) species from Natura 2000 sites beyond the 15km zone to use the harbour for feeding and Natura 2000 sites beyond the 15km zone with relevant mobile marine QI species were also considered as part of the assessment. However, in consideration of the nature of the works including their location, short duration, and low emissions relating to survey methodologies, it was considered that the ZoI of the works would not extend beyond 15km.

As described above, the test for the screening for AA is to assess, in view of best scientific knowledge, if the development, individually or in combination with other plans/project is likely to have a significant effect on a Natura 2000 site. If there are any significant, potentially significant, or uncertain effects, it will be necessary to proceed to AA and submit a Natura Impact Statement (NIS).

The locations of Natura 2000 sites within the zone of potential significant impact influence of the proposed works site, including their proximity are shown in Table 4-2. Natura 2000 sites beyond the 15km buffer zone were considered for further assessment however, in the absence of realistic S-P-R models linking the proposed works site with any other sites, no further sites required consideration. The Qualifying Interests (QI) of the Natura 2000 sites are outlined in Table 4-3.

Table 4-2: Natura 2000 sites within ZoI of the proposed works site

No	Natura 2000 Site Name	Site Code	Proximity of Site to Nearest Point of Natura 2000 site
1.	Cork Harbour SPA	(004030)	This SPA is located approximately 0.3km north of the site.
2.	Great Island Channel SAC	(001058)	This SAC is located approximately 5.3km north of the site.

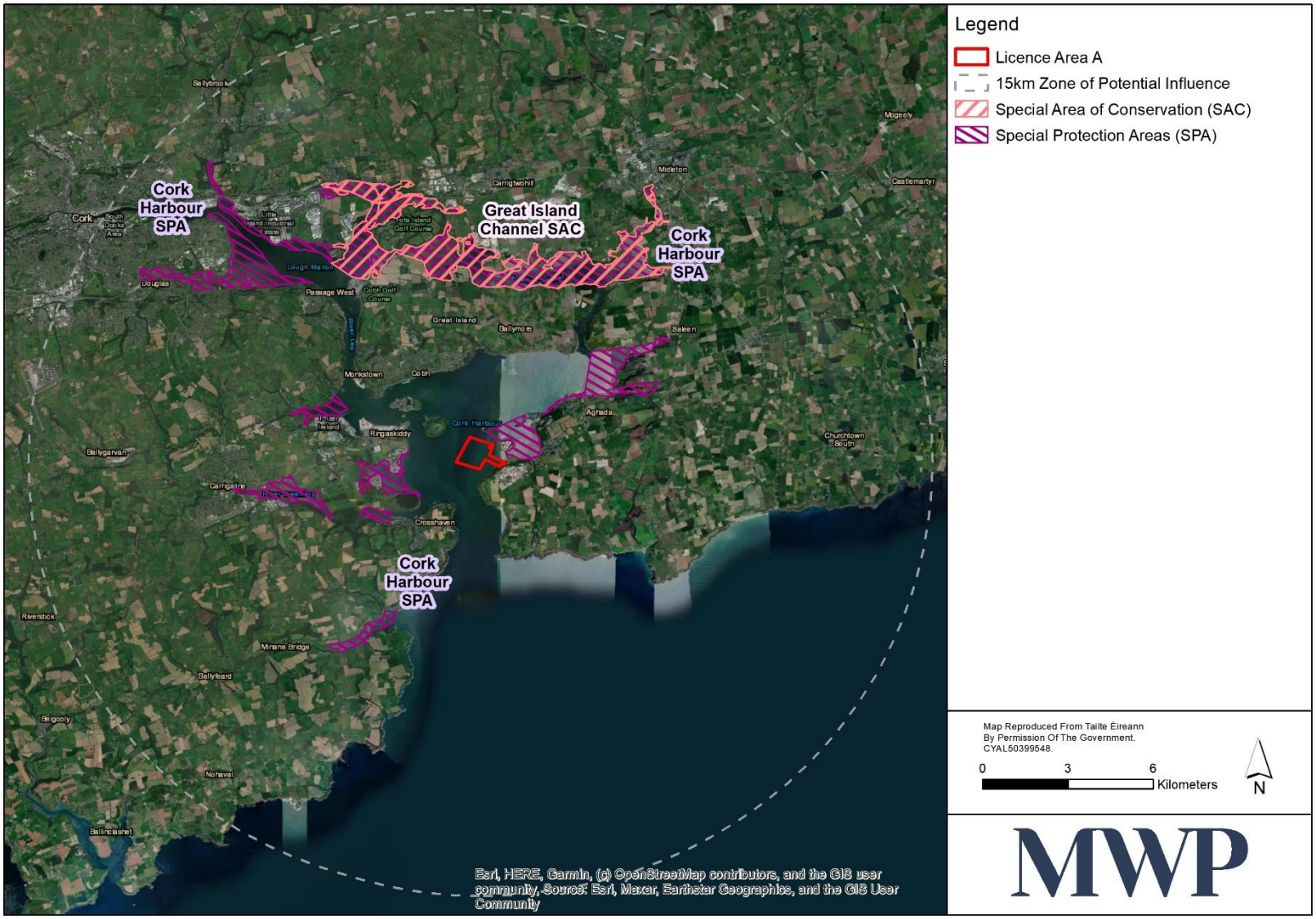

Figure 4-3 Natura 2000 Sites within the zone of potential influence (15 km radius buffer indicated)

4.4.2 Characteristics of Natura 2000 Sites

Table 4-3 lists the QIs of the Natura 2000 sites that lie within the potential ZoI of the subject site. Information pertaining to the Natura 2000 sites is from site synopses, conservation objectives and other information available on www.npws.ie.

Table 4-3: The QI of the SACs and SPAs within the potential ZoI for the proposed works site

Natura 2000 Site	Qualifying Interests
Cork Harbour SPA (Site code: 004030)	**Habitats** Wetland and Waterbirds [A999] **Birds** Little Grebe (*Tachybaptus ruficollis*) [A004] Great Crested *Grebe* (*Podiceps cristatus*) [A005] Cormorant (*Phalacrocorax carbo*) [A017] Grey Heron (*Ardea cinerea*) [A028] Shelduck (*Tadorna tadorna*) [A048] Wigeon (*Anas Penelope*) [A050] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Red-breasted *Merganser* (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Dunlin (*Calidris alpina alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa tetanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Lesser Black-backed *Gull* (*Larus fuscus*) [A183] Common Tern (*Sterna hirundo*) [A193]
Great Island Channel SAC (Site code: 001058)	**Habitats** Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1130]

4.4.3 Conservation Objectives

According to the Habitats Directive, the *conservation status of a natural habitat* will be taken as 'favourable' within its biogeographic range when:

- Its natural range and areas it covers within that range are stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- The conservation status of its typical species is favourable as defined below.

According to the Habitats Directive, the conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations. The conservation status will be taken as 'favourable' within its biogeographic range when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The specific conservation objectives for each site are available on www.npws.ie. The site-specific conservation objectives were available for following sites:

- Cork Harbour SPA; and
- Great Island Channel SAC

These have been accessed for the sites listed in the tables above on the [27/02/2023].

All conservation objectives together with other designated site information are available on http://www.npws.ie/protectedsites/.

4.5 Identification of Potential Impacts

Potential likely ecological impacts arising from the project are identified in **Table 4-4**.

Table 4-4: Potential likely ecological impacts

Description of elements of the project likely to give rise to potential ecological impacts.	The proposed marine SI works including geophysical, geotechnical and environmental surveys may cause the following potential ecological impacts: ▪ Disturbance from underwater noise associated with surveys ▪ Physical and noise disturbance to birds ▪ Fugitive oils, fuels, lubricants impacting water quality
Describe any likely direct, indirect or secondary ecological impacts of the project (either alone or in combination with other plans or projects) by virtue of: *Size and scale;* *Land-take;* *Distance from Natura 2000 Site or key features of the Site;* *Resource requirements;* *Emissions;*	The proposal is to carry out marine SI surveys. The works will not involve a land take from any Natura 2000 site. There are two Natura 2000 sites within the zone of potential influence of the proposed works. There will be no habitat loss within Natura 2000 sites. The Cork Harbour SPA is made up of a number different sites across Cork Harbour. Refer to **Figure 4-3**. The nearest designated sites of the Cork Harbour SPA is approximately 0.3km north of the proposed marine SI works site boundary; Whitegate Bay. The SPA is located in the same water body (Cork Harbour) as the proposed marine SI works. No SAC sites are within or near to the proposed marine SI works. The only SAC site within the ZoI, the Great Island Channel SAC, is approximately 5.3km over land from the proposed

Excavation requirements; *Transportation requirements;* *Duration of construction, operation etc.; and* *Other.*	marine SI works site boundary. None of the QI habitats, which form part of the SAC will be directly impacted by the proposed marine SI works. ▪ Resources required include: – Survey vessels with dedicated survey equipment – Floating pontoon – Jack-up platform – Tug vessel – Cable percussion and rotary coring rig – Van Veen type grab sampler or similar **Potential emissions include:** – If the contractor employs a jack-up barge, there will be temporary disturbance to the underlying sediment and seafloor – There will be some noise emissions from the operation of the equipment which will include a generator (for the drilling machinery). – Noise emissions may occur during the drilling activities however these will be at a level consistent with normal harbour activity and will be intermittent in duration. The proposed works will be temporary. They are anticipated to take approximately 19 weeks to complete. There are no other potential sources of impacts on Natura 2000 sites associated with the proposed development.

There is a potential hydrological pathway to the Cork Harbour SPA however given the low level emissions predicted from the proposed marine SI works and dilution effect in marine waters, the distance of proposed SI works site from the Cork Harbour SPA sites and the location of the marine SI works towards the mouth of the harbour relative to the SPA, this hydrological pathway is not considered significant.

Aerial imagery was examined to identify any potential habitats that are important to the QI bird species of the Cork Harbour SPA. Cork Harbour is designated for the large number of birds that use the mudflats and sandflats as well as other coastal habitats for feeding and nesting. Cork Harbour is of international importance for the total numbers of wintering waterbirds (>20,000 individuals) and for the populations of Black-tailed Godwit and Redshank which are designated species for the SPA. However, these species are waders and favour shallow mudflats and sandflat estuarine areas compared to the relatively deep waters of the proposed work area.

The extensive wetlands found through throughout the SPA are important for a number of other bird species such as Whooper Swan, Little Egret, Golden Plover, Mediterranean Gull and Common Tern. The location of the proposed marine SI works site does not contain sandflat habitats suitable foraging or feeding areas for wetland birds. As described in **Section 4.2.1**, the proposed marine SI works is located within a busy stretch of water,

referred to as Dognose Bank, used by port traffic to access the Cork City docks, Tivoli docks, Ringaskiddy, Cobh and Whitegate oil refinery as well as other smaller harbours and marinas within greater Cork Harbour.

4.6 Assessment of Significance of Potential Impacts

This section considers the list of sites identified in Table 4-2 together with the potential ecological impacts identified in the previous section and determines whether the project is likely to have significant effects to Natura 2000 sites. The evaluation takes cognisance of the scope, scale, nature and size of the project, its location relative to the Natura 2000 sites listed in Table 4-2, and the degree of connectedness that exists between the project and each Natura 2000 sites' potential ecological receptors.

4.6.1 Natura 2000 within the zone of potential impact influence

Table 4-5 assesses each site within the zone of potential influence as outlined in Figure 4-3. The likelihood of significant effects to a Natura 2000 site from the project was determined based on several indicators including:

- Water quality and resource;
- Habitat loss and/or alteration;
- Habitat or species fragmentation; and
- Disturbance and/or displacement of species.

The likelihood of significant cumulative/in-combination effects is assessed in Section 4.6.7.

The Natura 2000 sites listed in Table 4-5 are within the ZoI of the proposal and these sites are assessed in light of the indicators outlined above.

With regard to the Natura 2000 sites within the ZoI, all the sites have been excluded from further assessment due to a lack of a viable S-P-R linkage in particular a lack of direct hydrological connection between the proposed works site and the Natura 2000 sites making an impact between mechanisms and any QIs extremely unlikely to occur.

Table 4-5: Natura 2000 Sites Assessment of Connectivity

Natura 2000 Site	Proximity of subject site to nearest point of designated site (km)	Assessment of Connectivity
Cork Harbour SPA (Site code: 004030)	This SPA is located approximately 0.3km northeast of the site	Designated for a number of wading birds, coastal birds, and wetlands. No spatial overlap with SPA but proposed works area may contain habitat utilised by SCI bird species.
Great Island Channel SAC (Site code: 001058)	This SAC is located approximately 5.3km north of the site	Designated for the following coastal habitats: mudflats and sandflats not covered by seawater at low tide [1140] and Atlantic salt meadows (Glauco-Puccinellietalia maritimae). No spatial overlap however potential hydrological connection due to the marine nature of the proposed works

4.6.2 Water Quality

The entire proposed works is not located within any Natura 2000 site, the nearest site being the Cork Harbour SPA located approximately 0.3km to the northeast of the site.

Where works are conducted within or in proximity to water bodies, impairment of water quality may potentially occur as a result of accidental fuel/oil spills from machinery/equipment and the release of increased levels of sediment which may occur during drilling for geotechnical surveys. With the implementation of industry best practice regarding the usage and storage of fuels on site, any spillages relating to fuels, oils, and/or lubricants are highly preventable and therefore not considered likely to occur. Any minor fugitive releases that may occur are immediately subjected to considerable dilution effect upon entering a dynamic marine system and, in consideration of location of the works in relation to Natura 2000 network, are not considered to result in likely significant impacts to water quality.

In consideration of increased sedimentation that may occur from geotechnical works, given the highly localised and temporary nature of the proposed survey investigations (*c*. 19 weeks), the location of the proposed works in relation to Natura 2000 sites and in consideration of the low sediment release associated with these works, it is considered that the proposed works will not result in likely significant impacts to water quality from increased sediment which could affect the conservation objectives of either the Cork Harbour SPA or the Great Island Channel SAC. All QIs, SCIs and the impact mechanism are screened out for further assessment.

4.6.3 Habitat Loss and Alteration

The proposed works considered in this assessment occurs outside any Natura 2000 site, therefore, no direct habitat loss or alteration impacts within any Natura 2000 site are reasonably foreseeable. The works are restricted to the footprint of the proposed works site, in marine coastal waters located away from the sheltered mudflat and sandflat habitats located at Whitegate Bay. Consequently, the proposed works will not result in significant habitat loss or alteration within any Natura 2000 site. All QIs, SCIs, and impact mechanism are screened out for further assessment.

4.6.4 Disturbance and/or Displacement of Species

The Cork Harbour SPA is designated for a number of wading and coastal bird species encompassing an area of 26,614ha. Though the proposed works area are not located within the SPA, some designated bird species have the potential to occur within the proposed works site, namely seabirds. Potential exists for localised and temporary disturbance effects to foraging birds from noise emissions during site investigations (12 weeks for intrusive works). However, ample alternative foraging habitat exists nearby and within the wider area. The location of the proposed marine SI works site does not contain sandflat habitats suitable foraging or feeding areas for wetland birds. The proposed programme of works described in Section 4.2 is located entirely outside the SPA, relatively small in scale and temporary in duration. In consideration of the location of the works in open waters away from any potential roosting habitat, there is no potential for likely significant impacts to occur to any SCI bird species designated for the Cork Harbour SPA.

4.6.5 Habitat or species fragmentation

Habitat fragmentation has been defined as ‘reduction and isolation of patches of natural environment’ (Franklin *et al*., 2002; Morrison *et al*., 2012) which results in spatial separation of habitat areas which had previously been in a state of greater continuity. Adverse effects of habitat fragmentation on species include the increased isolation of populations which can detrimentally impact upon the resilience or robustness of the populations.

The preceding **Sections 4.6.2**, **4.6.3**, and **4.6.4** have concluded that water quality impact, habitat loss and alteration impacts, and disturbance/displacement impacts can be rules out for the Great Island Channel SAC and Cork Harbour SPA due to the proposed works. Therefore, considering the conclusions in the preceding subsections and bearing in mind the scope, scale, duration and timing of the proposed works, significant habitat or species fragmentation impacts on Natura 2000 sites within the ZoI are ruled out as a result of the proposed works and further assessment is not considered further.

4.6.6 Identification of other plans/activities in the area and Cumulative/In-combination Impacts

The obligation to undertake AA under the 2011 Birds and Natural Habitats Regulations derives from Article 6(3) and 6(4) of the Habitats Directive. Regulation 42 (1) of the 2011 Regulations requires that:

> *A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or* ***in combination with other plans or projects*** *is likely to have a significant effect on the European site*.

It is therefore required that the potential impacts of the proposed works be considered in combination with other relevant plans or projects.

The assessment of potential in-combination effects considers the above potential impact mechanisms associated with the proposed project that, in combination with other plans and projects, may result in significant effect arising. To inform the assessment of potential in-combination effects, a review of consent applications for projects in the vicinity of the proposed works included on the following websites was completed in June 2023.

The assessment of potential in-combination effects considers the above potential impact mechanisms associated with the proposed project that, in combination with other plans and projects, may result in significant effect arising. To inform the assessment of potential in-combination effects, a review of consent applications for projects in the vicinity of the proposed works included on the following websites was completed in June 2023:

- Department of Housing, Planning and Local Government (DHPLG) – Environmental Impact Assessment (EIA) Portal

  https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal

- National Planning Application Map Viewer

  https://myplan.ie/national-planning-application-map-viewer/

- Cork County Council – Planning System

  http://planning.corkcoco.ie/ePlan/SearchTypes

- Cork County Council – Planning Register ArcGIS Application

  https://corkcoco.maps.arcgis.com/apps/webappviewer/index.html?id=03a3b83db76c46fd9b66178f8d407e0d

- An Bord Pleanála – Strategic Infrastructure Development (SID) Portal

  http://www.pleanala.ie/lists/2020/sid/index.html

The characteristics of existing, proposed or other approved projects or plans which may cause interactive or cumulative impacts with the project being assessed and which may affect the site were considered in the broad area. Furthermore, placenames were chosen within the vicinity of the proposed SI works as search criteria ('Corkbeg', 'Carlislefort', 'Ballytigeen', etc.) and a list of potential applications was compiled. All incomplete and refused applications were then removed as outside of scope in this screening report. Once the full list had been compiled, all duplicate records (based on address terms overlapping) were removed. Of the remaining applications, planning retention applications were removed as referring to retention applications for previously completed works. This rendered a short-list of applications for consideration which were considered to be localised in scale and extremely unlikely to impact in combination with the proposed development works which are detailed below:

- Ref 225173, Irving Oil Whitegate Refinery Limited, Whitegate Refinery, Corkbeg, Whitegate, Midleton, Co. Cork. The construction of a containment basin, pipework with associated pipe platforms and all ancillary development works at the existing oil refinery facility. A Natura Impact Statement (NIS) has been prepared and will be submitted to the Planning Authority with the application. The proposed development is for modifications to an establishment to which the Major Accident Directive applies. The proposed development is for the purposes of an activity requiring an integrated pollution control licence [Industrial Emissions Directive (IED) Licence].
- Ref 206463, Uisce Éireann – Irish Water, Townlands of Knockanemorney TD, Ballynafarsid TD, , Aghada TD, Curragh, Mosestown TD, Ballincarroonig , Corkbeg, TD, Ardnabourkey TD, Glanagow TD, , Trabolgan, Ballytigeen, Co. Cork. The development which consists of the construction of a sewerage scheme, landscaping and associated site works, for the villages of Whitegate and Aghada. The scheme consists of the following components: A) A proposed wastewater treatment plant (WWTP) at Ballytigeen TD, with associated and ancillary development works including an access road, tanks, storage facilities, inlet works, all associated site development works, boundary fencing around the perimeter of the WWTP, a gravity sewer and long sea outfall to convey treated discharge effluent from the WWTP to White Bay through Glanagow TD and Trabolgan TD. B) A proposed underground wastewater pump station and associated infrastructure in Rostellan at the Thomas Kent Memorial Park at Knockanemorney TD, including an underground pump sump, underground stormwater storage tank, valve and flowmeter chambers, manholes, pipework, access road and gate, control kiosks and vent stack. C) A proposed rising main at Knockanemorney TD, Ballynafarsid TD and Aghada TD, to convey flows from the proposed Rostellan pump station to a proposed pump station in Lower Aghada. D) A proposed underground wastewater pump station and associated infrastructure at Lower Aghada located west of the pier at Aghada TD, including an underground pump sump, underground stormwater storage tank, valve and flowmeter chambers, manholes, pipework, access road, gate, control kiosks, a surge vessel, a vent stack and the decommissioning of an existing package wastewater treatment plant. E) A proposed rising main to convey flows from the proposed Lower Aghada pump station to an existing sewer in the Upper Aghada sewerage network at Aghada TD. F) A proposed upgrade to the existing sewerage system by the replacement of an existing 150mm diameter sewer with a proposed 225mm diameter sewer at Aghada TD and Curragh TD. G) A proposed underground wastewater pump station and associated infrastructure at the Square in Whitegate Village including an underground pump sump, underground stormwater storage tank, valve and flowmeter chambers, manholes, pipework, control kiosks and vent stack, and decommissioning of existing pump station, in Mosestown TD and Ballincarroonig TD. H) A proposed rising main to convey flows from the proposed Whitegate pump station to the proposed WWTP at Mosestown TD, Corkbeg TD, Ardnabourkey TD and Ballytigeen TD. I) A proposed 225mm diameter gravity sewer in Ardnabourkey TD and decommissioning of an existing septic tank.

- Ref 204572, Irving Oil Whitegate Refinery Limited, Whitegate Refinery, Corkbeg, Whitegate, Midleton, Co. Cork. The construction of an extension to an existing containment basin and all ancillary development works at their existing oil refinery facility. Ancillary site works to include a temporary stockpile, gabion wall along the northern boundary of the proposed catchbasin slope and pipe rack for an existing pipeline. Access to the proposed development will be via the existing entrances to the refinery facility from the R630. A Natura Impact Statement (NIS) has been prepared and will be submitted to the Planning Authority with the application. The proposed development is for modifications to an establishment to which the Major Accident Directive applies. The proposed development is for the purposes of an activity requiring an Integrated pollution control licence [Industrial emissions Directive (IED) Licence].

Natura Impact Statements were prepared in relation to the proposed Corkbeg Catchment Basin Upgrade Works (Ref 204572 and Ref 225173) at the Irving Oil Whitegate Refinery, Whitegate, Co. Cork and the Irish Water project (Ref 206463). These reports concluded that there was no risk to the integrity of any Natura 2000 sites within the vicinity of proposed development, either individually or in combination with any other plans, projects, or activities in the surrounding area. In consideration of the NISs' conclusion and the scale and temporary nature of the proposed works, it can be considered that there is no potential for in-combination effects, to occur between the projects noted above and the proposed marine SI works at Dognose, Co. Cork.

4.6.7 Cumulative/In-combination Impacts

The preceding subsections have concluded that no significant direct, indirect or secondary impacts are expected to ensue from the proposed works at Corkbeg, Co. Cork. It was concluded that there are no plans or projects which could contribute to a cumulative or in-combination effect with the proposed works, particularly in consideration of the marine nature and timescale of the proposed works. All QI habitats and SCI species are screened out for further assessment in relation to cumulative/in-combination impacts.

4.7 Conclusion of Screening Stage

In conclusion, to determine any potential significant impacts of the proposed project on nearby Natura 2000 sites, a screening process for Appropriate Assessment was undertaken. Two Natura 2000 sites within the ZoI were initially considered on the basis of their proximity to the proposed works site being within the 15km (as proposed in Scott Wilson *et al*., 2006). Following NPWS guidance (DoEHLG, 2009) this potential ZoI was assessed on a case-by-case basis with consideration to the nature, size and location of the project, the sensitivities of the ecological receptors and the potential for cumulative effects on these sites and no further sites were deemed appropriate for consideration.

It has been objectively concluded during this screening process that the proposed site investigation works at Corkbeg, County Cork, either individually or in combination with other plans or projects, is not likely to have significant effects on the following two Natura 2000 sites located within 15 km of the proposed development in view of those sites' Conservation Objectives, and further assessment is deemed unnecessary:

- Great Island Channel SAC (Site code: 001058); and
- Cork Harbour SPA (Site code: 004030).

This screening for Appropriate Assessment was undertaken to determine the potential for likely significant effects of the proposed works, individually, or in combination with other plans or projects, in view of the conservation objectives of any Natura 2000 site. It has been objectively concluded that sites considered are not likely to be significantly affected by the proposed works and can therefore be screened out for Appropriate Assessment.

Measures intended to avoid or reduce negative effects on the Natura 2000 sites have not been relied upon in reaching this conclusion.

5. References

Department of the Environment, Heritage and Local Government (DoEHLG) (2009). *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.* Department of Environment, Heritage and Local Government.

Directorate General Environment (DGE), (2013), *Interpretation Manual of European Union Habitats- EUR 28*. The European Commission.

Directorate General Environment (DGE) (2007). *Interpretation Manual of European Union Habitats*, European Commission, Brussels.

DGE, 2013. *Interpretation Manual of European Union Habitats EUR28,* S.l.: European Commission Directorate General of Environment.

European Commission (EC) (2000). *Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*. Luxembourg: Office for Official Publications of the European Communities.

European Commission (EC) (2001). *Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Luxembourg: Office for Official Publications of the European Communities.

Franklin, Alan B., Noon, Barry R. & Luke George T., (2002). *What is Habitat Fragmentation?*, Studies in Avian Biology No. 25: 20-29.

King, J. L. et al., 2011. *Ireland Red List No. 5: Amphibians, Reptiles and Freshwater Fish,* Dublin, Ireland: National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (NPWS), 2013. The Status of EU Protected Habitats and Species in Ireland. Species Assessments Volume 3, Version 1.0., Dublin, Ireland: Unpublished report. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (NPWS), 2013a. *The Status of EU Protected Habitats and Species in Ireland. Habitats Assessment Volume 2. Version 1.1.,* Dublin, Ireland: Unpublished report, National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (NPWS), 2013b. *The Status of EU Protected Habitats and Species in Ireland. Species Assessments Volume 3, Version 1.0.,* Dublin, Ireland: Unpublished report. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (NPWS) (2014). *Cork Harbour SAC (004030): Conservation Objectives.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

National Parks and Wildlife Service (NPWS) (2014). *Great Island Channel SAC (001058): Conservation Objectives*. National Parks and Wildlife Service, Department of Arts, Heritage, and the Gaeltacht.

Appendix 1

Stages of Appropriate Assessment

Stage 1 - Screening

This is the first stage of the Appropriate Assessment process and that undertaken to determine the likelihood of significant impacts as a result of a proposed project or plan. It determines need for a full Appropriate Assessment.

If it can be concluded that no significant impacts to Natura 2000 Sites are likely, then the assessment can stop here. If not, it must proceed to Stage 2 for furthermore detailed assessment.

Stage 2 - Natura Impact Statement (NIS)

The second stage of the Appropriate Assessment process assesses the impact of the proposal (either alone or in combination with other projects or plans) on the integrity of the Natura 2000 Site with respect to the conservation objectives of the site and its ecological structure and function. This is a much more detailed assessment that Stage 1. A Natura Impact Statement containing a professional scientific examination of the proposal is required and includes any mitigation measure to avoid, reduce or offset negative impacts.

If the outcome of Stage 2 is negative i.e., adverse impacts to the sites cannot be scientifically ruled out, despite mitigation, the plan or project should proceed to Stage 3 or be abandoned.

Stage 3 - Assessment of alternative solutions

A detailed assessment must be undertaken to determine whether alternative ways of achieving the objective of the project/plan exists.

Where no alternatives exist the project/plan must proceed to Stage 4.

Stage 4 - Assessment where no alternative solutions exist and where adverse impacts remain

The final stage is the main derogation process examining whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project to adversely affect a Natura 2000 Site where no less damaging solution exists.