MWP

Assessment of Impacts on Marine Usage Report

Marine Site Investigation Surveys at Dognose, Corkbeg, Whitegate, Co. Cork

Port of Cork Company

April 2025

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Appendix 1 – Site Layout Plan

Project No.	Doc. No.	Rev.	Date	Prepared By	Checked By	Approved By	Status
23686	6002	А	Apr 2025	WM	MF	KF	ISSUE

MWP, Engineering and Environmental Consultants

Address: Park House, Bessboro Road, Blackrock, Cork, T12 X251, Ireland

www.mwp.ie



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1. Introduction

The Port of Cork Company (PoCC) (the Applicant) is submitting a Marine Usage Licence (MUL) application 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 Maritime Area Regulatory Authority (MARA).

MARA is responsible for the licencing of any works to be carried out in Ireland's marine areas. The aim is to ensure that all potential impacts from such works are identified and mitigated and/or prevented where possible. To this end, all applicants are required to submit an Assessment of Impacts of Marine Usage (AIMU) report to assist MARA in the decision-making process when granting licences for such works. The scale and complexity of the AIMU should reflect the scale and complexity of the project. This report identifies and analyses the likely effects for the proposed activity.

Following the establishment of MARA, it was determined that an application for a Marine Usage Licence would be appropriate for the proposed survey work. This AIMU document has been prepared as part of supporting documentation for such an application.

2. Legislative Considerations

2.1 Marine Strategy Framework Directive (MSFD)

The MSFD was produced to safeguard the marine environment, and the ecosystems and biodiversity that form part of that environment and enable our economic and holistic interactions with the marine environment. The proposed survey works are to inform future potential of the Port as part of the Port of Cork Masterplan 2050, with specific interest in Offshore Renewable Energy (ORE) potential. The proposed surveys will result in important habitat and environmental information that can be used to update the current baseline for the area, and its feasibility to accommodate development to support future ORE use.

Since none of the negative impacts stated in the MSFD, which include pollution, biodiversity loss, seabed damage, overexploitation, non-indigenous species introduction, marine litter, are assessed to occur with the proposed survey work of the application, the works are considered cognisant of the MSFD. A Risk Assessment of Annex IV Species was carried out by the Irish Whale and Dolphin Group, with the recommended mitigation that a Marine Mammal Observer (MMO) be present at the site during the survey works to ensure the area is clear of any marine mammals during the works. The MMO will operate using the National Park and Wildlife Service's (NPWS) 'Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters' (2014). The temporary nature and short duration of the surveys, combined with there being no lasting impact on the receiving environment, shows compliance with the MSFD.

2.2 Water Framework Directive (WFD)

The WFD aims to protect, and enhance where possible, the water quality status of waterbodies within the European Union and is the main law for water protection. It applies to all inland, transitional and coastal bodies. The proposed surveys are taking place in Cork Harbour, which is recognised by the Environmental Protection Agency as the Cork Harbour Coastal Waterbody (IE_SW_060_0000). It is within WFD Catchment 19, Lee, Cork

Harbour and Youghal Bay, and the proposed works are adjacent to the Farrannamanagh sub-catchment (Farrannamanagh_SC_010). The proposed survey works are short-term in nature and will not cause any lasting impacts on water quality in the area that would contradict the objectives of the WFD.

2.3 EIA Directive

The EIA Directive, as amended (Directive 2014/52/EU), was produced to outline the procedures to efficiently assess the environmental impacts of proposed projects, providing environmental protections and transparency in regard to the decision-making process for both public and private projects. The EU EIA Directives have been transposed into Irish legislation primarily under the Planning and Development Act 2000 (as amended) and subsequent regulations, collectively cited as the Planning and Development Regulations 2001 to 2024. The Planning and Development Act 2024 was signed into law in October 2024, and will commence on a phased basis, eventually replace the Planning and Development Act 2000 (as amended).

There are several types of projects that require a mandatory EIA and are identified in Part 1 of Schedule 5 of the Directive. Part 2 of schedule 5 refers to projects that are likely to have significant effects at a certain scale. Thresholds have been set by Member States on what scale of these projects would require an EIA.

The proposed SIs are short term in duration, and in an area of 95.55ha. The effects of the SIs will be temporary and small scale. The elevations in suspended sediment are expected to be negligible and any sediment in the water column will be naturally dispersed quickly by the tidal currents in the harbour during investigation. All surveys will have a Marine Mammal Observer present to mitigate any potential that may occur to these species. All benthic and intertidal surveys will be caried out in the designated survey period and following best practice guidelines. Overall, the proposed SIs that are the subject of this application fall below the thresholds and therefore does not require an EIA.

MARA are unable to issue a licence to a maritime usage which would require an EIA, which the proposed investigatory works do not trigger. As per their guidelines, a Statutory Information Supporting Appropriate Assessment has been produced and submitted as part of this application, along with a Risk Assessment of Annex IV Species.

2.4 National Marine Planning Framework (NMPF)

The NMPF was published in 2021, with the objective of managing marine based human activities that will interact with each other and the marine environment. It recognises the dynamic space that is the marine environment and aims to prevent user/user and user/environment conflicts. It combines various EU Directives to set a clear path forward in the managing of our waters. A NMPF Compliancy Statement has been submitted with this report and should be referred to regarding the proposed survey works compliancy.

3. **Project Description**

The proposed marine SIs, **Figure 3-1**, include geophysical surveys, geotechnical surveys, and environmental surveys. The environmental surveys will include sub-tidal benthic surveys, sub-tidal video surveys, intertidal benthic surveys and marine mammal surveys. These survey works will enable:

- Detailed mapping of nearshore shallow geological and seabed character;
- Reconnaissance level mapping of seabed relief and features (e.g. archaeology);
- Greater understanding of the seabed and sub-seabed conditions;

- Evaluation of the nature and mechanical properties of the superficial seabed sediments along the survey corridor;
- Aid in the classification of submerged habitats;
- Greater understanding of bird, marine mammal and reptile distribution and abundance, and;
- Baseline environmental mapping (i.e. habitats and species).

The knowledge gained from the proposed SI will be used to minimise uncertainty in ground conditions at an early design stage.

Data acquired during the proposed SIs will be used to inform design of any future projects in the area as well as to inform environmental appraisals carried out in support of any consent application by providing information on the baseline environment and allowing impacts to be predicted, and subsequently appropriate mitigation to be developed as applicable. The results of the proposed SIs may also be used at a later date to provide a baseline against which to monitor post construction effects of construction, operation and decommissioning.



Figure 3-1: Proposed Marine Usage Licence Area

3.1 **Programme of Works**

This section provides a high-level overview of the proposed SIs. Full details on the scope of the proposed site investigations are provided within the Schedule of Works document submitted in support of this MUL. The intention is to commence the proposed site investigations as soon as feasible following award of a MUL, taking into consideration any proposed mitigation requirements. The exact mobilisation dates for the SI activities will not be known until a MUL 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

two to three days for site investigation activities such as boreholes, Cone Penetrometer Tests (CPTs), grab sampling etc...

3.1.1 Geophysical Surveys

This consists of sub bottom profiler single channel seismic reflection, underwater multichannel analysis of surface waves (UMASW) and seismic refraction surveys. These non-invasive surveys are likely to take **3 weeks** to complete and the interpretation of the geophysical survey will form the basis of the scope of work for geotechnical surveys.

3.1.2 Geotechnical Surveys

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 exact location of the geotechnical sampling, within the survey corridor will be determined following interpretation of the geophysical. Indicative locations are outlined in **Figure 3-2**. The intrusive investigation works are likely to take **12** weeks to complete.

3.1.3 Environmental Surveys

3.1.3.1 Sub-tidal Benthic and Video Surveys

Benthic habitats have a year-round survey period availability. The epifauna survey period is between **April to September**. If algal species are deemed necessary, they survey period for these is **May to August**. Once tendering is complete and a contractor appointed, the duration of these surveys will be established by the contractor.

- Sub-tidal Benthic Survey: used to sample the marine habitats and fauna. Van-Veen grab taken for benthic faunal analysis aid in the classification of submerged habitats; and,
- Sub-tidal Video Survey: provides footage to aid in the classification of submerged habitats. This is a non-invasive survey for habitats and fauna.

3.1.3.2 Intertidal Benthic Survey

A series of cores will be taken in the soft sediment intertidal sections of the survey area. At each site typically:

1) a single stove-pipe core (19cm \emptyset) is taken for macrofaunal analysis;

2) A single sediment scrape is taken from the sediment surface for Particle Size Analysis (PSA) and Loss on Ignition (LOI), and;

3) A photographic record is taken. Notes of sediment type and obvious epibenthos will be recorded.

Survey period for these intertidal surveys is **April to September**. The duration of these surveys will be confirmed once a contractor is appointed after the tendering process.

3.1.3.3 Marine Mammal Surveys

Marine mammals are typically surveyed for the shoreline via vantage point surveys. The surveyor uses a telescope and binoculars to scan the study area. This survey will be supplemented by an underwater acoustic survey. Surveys

for marine mammals may occur year-round taking account of species-specific movements. An Annex IV Species Risk Assessment for the proposed SI works has been undertaken by Dr Simon Berrow of the Irish Whale and Dolphin Group (IWDG). Mitigation is recommended through provision of a Marine Mammal Observer (MMO) during geophysical and geotechnical activities to comply with NPWS (2014) guidelines. The duration of these surveys will be the same as the duration of the geotechnical and geophysical surveys. Mitigation, once implemented, will result in no significant impacts on marine mammals.



Figure 3-2: Indicative Survey Locations

4. Considerations

An understanding of the potential effects of an operation on the environment requires a clear understanding of the present state of the environmental baseline. For the purposes of this report, this section focuses on the environmental receptors which have the potential to be affected by the proposed site investigations.

4.1 Planning & Development

A desktop search of planning applications was performed, and the proposed survey work will have no effect on any developments in the vicinity given the short-term nature of the surveys, and lack of interaction with any permitted planning applications (Last accessed 12th March 2025).

4.2 Land & Soils

Sediment on the seabed will be disturbed during the benthic and geophysical surveys. However, this is a shortterm temporary effect and any sediment that becomes suspended will be dispersed and settle quickly back onto the seabed. The elevations in suspended sediment are expected to be negligible and will be naturally dispersed quickly by the tidal currents in the harbour.

The proposed surveys will lead to small indents in the seabed where the boreholes and grab samples were collected. These will be minor in scale and localised and will become infilled through natural sedimentary processes. Therefore, no impacts to bathymetry are expected.

There are no significant negative impacts associated with the proposed survey works.

4.3 Water

The benthic ecology and geotechnical surveys will result in disturbance to the seabed, which will cause an increase in suspended sediment concentrations resulting in an increase in turbidity in the water column. The elevations in suspended sediment are expected to be negligible and any sediment in the water column will be naturally dispersed quickly by the tidal currents in the harbour during investigation. The spatial extent of seabed disturbance will be localised, short term and temporary with turbidity expected to return to background levels rapidly.

There is the potential of spills or leaks from fuels and oils during the surveys from the vessels. The vessels used must comply with the guidance on vessel maintenance from MARPOL, and be certified with the Marine Survey Office. Best practice guidelines will be followed throughout the duration of the surveys to reduce the risk of accidental spills or leaks.

It is deemed there will be no significant negative impacts on water quality in the vicinity of the surveys due to the short-term nature of the proposed SIs.

4.4 Biodiversity

The SIs will not be undertaken in a protected site, as defined by Article 6(3) of the EC Habitats Directive (92/43/EEC). An assessment was undertaken for the proposed works, and a SISAA report was produced highlighting this process and results. There were two protected sites identified within a 15km potential Zone of Influence (ZoI), The Cork Harbour SPA and the Great Island Channel SAC. The SPA is located 0.3km north of the proposed survey site, while the SAC is 5.3km north. These are shown on **Figure 4-1**.

The proposed surveys are short term and temporary in nature meaning any indirect impacts will not occur over a long period of time and will cease once the surveys have stopped. Direct impacts from disturbance are limited to the benthic grab samples and CPT and core sample locations, therefore the spatial scale of direct disturbance is relatively small in the context of the wider offshore area where similar habitats are present. Indirect effects from suspended sediment increase and re-deposition are also spatially limited, with elevations in suspended sediment expected to be negligible and any sediment in the water column will be naturally dispersed quickly by the tidal currents in the harbour during investigation. Any smothering would be a very thin layer within the vicinity of the sample locations due to the small volumes of sediment removed during sampling. Therefore, no significant impacts are expected in relation to biodiversity due to physical disturbance and removal, increased suspended sediment and re-deposition caused by the proposed surveys.

The intertidal surveys do not overlap with any SACs or SPAs and will be of short duration (up to 1 day per survey location). Any small areas of sediment dug over in the intertidal area will be quickly infilled following cessation of the disturbance.

Overall due to the scale and nature of the proposed surveys, it is not expected there will be any significant negative impact biodiversity in the vicinity of the proposed SIs. A full assessment of the potential impacts of the works on biodiversity was undertaken in the SISAA report submitted with this application.



Figure 4-1: Natura 2000 Sites within the Zone of Influence (15km radius buffer indicated)

4.5 Fisheries & Aquaculture

Data from the Marine Institute's *Ireland's Marine Atlas*¹ shows there are a number of species with spawning and nursery grounds overlapping the MUL area. These areas are shown in **Figure 4-2** to **Figure 4-6**, which are:

- Cod (*Gadus morhua*) nursery grounds;
- Atlantic Herring (Clupea harengus) spawning and nursery grounds;
- Whiting (Merlangius) spawning and nursery grounds;
- Horse Mackerel (Trachurus trachurus) spawning and nursery grounds;
- Mackerel (Scomber scombrus) nursery grounds.

¹ https://atlas.marine.ie/

There are a number of rivers on the south and east coast of Ireland which have been designated as SACs for Annex II migratory fish. Although these SACs are not marine, the migratory fish for which they were designated have a marine phase of the lifecycle. These species rely on the sea to migrate to feeding grounds before returning to rivers to spawn. The following lists the species from SACs in Ireland and the times of year of their migrations:

- Sea lamprey (*Petromyzon marinus*) late April to early June;
- River lamprey (Lampetra fluviatilis) September to June;
- Twaite shad (Alosa fallax) year-round and migrate into rivers from April-July; and
- Atlantic salmon (Salmo salar) May to June and autumn months.

The SISAA report submitted with this application also considered the impacts to Annex II migratory fish species and concluded there would likely be no significant effect on any of the Annex II fish species.

Data available from the Department of Aquaculture, Food and the Marine (DAFM) as provided on Ireland's Marine Atlas shows that there are no aquaculture operations within the proposed MUL area, and the survey site is not located within any designated Shellfish Waters. There are a number of designated Shellfish Water sites and Aquaculture Sites in Cork Harbour. The nearest Aquaculture site is located approximately 1.1 km northeast of the proposed site at Cork Harbour - Atlantic Shellfish Ltd (ID number T05/0020FO). The nearest shellfish water (Rostellan West, Site Code: IE_SW_060_0000) is located approximately 3.8 km northeast of the MUL area. These are shown in **Figure 4-7**.

It is considered that the proposed SIs will not have a significant negative impact on fisheries and aquaculture in the vicinity of the area being applied for a MUL.





Figure 4-2: Cod Nursery Grounds

AIMU Report Marine Site Investigations at Dognose





Figure 4-3: Atlantic Herring Spawning and Nursery Grounds





Figure 4-4: Whiting Spawning and Nursery Grounds



Figure 4-5: Horse Mackerel Spawning and Nursery Grounds





Figure 4-6: Mackerel Nursery Grounds





Figure 4-7: Aquaculture Sites and Designated Shellfish Waters

4.6 Air Quality

Under the Clean Air for Europe (CAFE) Directive, EU member states must designate "Zones" for the purpose of managing air quality. For Ireland, four zones were defined in the Air Quality Standards Regulations (2011). The zones were amended on 1 January 2013 to take account of population counts from the 2011 CSO Census and to align with the coal restricted areas in the 2012 Regulations (S.I. No. 326 of 2012).

The main areas defined in each zone are:

- Zone A: Dublin;
- Zone B: Cork;
- Zone C: Other cities and large towns comprising Limerick, Galway, Waterford, Drogheda, Dundalk, Bray, Navan, Ennis, Tralee, Kilkenny, Carlow, Naas, Sligo, Newbridge, Mullingar, Wexford, Letterkenny, Athlone, Celbridge, Clonmel, Balbriggan, Greystones, Leixlip and Portlaoise; and
- Zone D: Rural Ireland, i.e. the remainder of the State excluding Zones A, B and C.

The site is located in the air quality management area Zone D, the zone with the highest air quality. Air quality management area Zone B is located across the harbour to the west, and includes the urban areas of Passage West, Upper Pembroke and, further afield, Cork city.

It is deemed there will be no significant negative impacts on air quality during the duration of the proposed SIs, due to the short-term nature of the works and the existing vessel activity within the MUL area.

4.7 Noise & Vibration

The site investigation surveys from the vessel and geophysical survey can cause underwater noise within the immediate vicinity of the survey vessel. This underwater noise could potentially affect fish sensitive to noise and act as a barrier that could impede migration pathways (note that basking shark is an elasmobranch (sharks and rays) which is a group with generally low sensitivity to noise vibrations due to the fact they do not have swim bladder (Popper *et al.*, 2014; NatureScot, 2020) and noise disturbance is not expected to impact them). However, due to the fact that sound sources from the survey will not consist of significant rapid pressure changes and considering the distance offshore and short-term temporary nature of the surveys, no significant impacts are expected in relation to fish and shellfish ecology due to the generation of underwater noise.

4.8 Landscape & Seascape

A large proportion of the MUL area is within and around Cork Harbour, which is characterised by a number of shipping routes and areas with high vessel density and visual disturbance is already caused by vessels. Due to the short-term temporary nature of the surveys, the survey vessels will not cause any additional significant visual disturbance. There are no sites designated for landscape and visual receptors such as United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites along the boundary of the coastline adjacent to the MUL area.

The proposed works site lies adjacent to a High Value Landscape as designated un the Cork County Development Plan (CDP) 2022-2028. The R630 public road which is the major connection route is a Scenic Route (S51) that runs along the coastline from Ballynacorra via East Ferry to Whitegate and Roche's Point. The Scenic Route (S50) also runs between Inch and Aghada and runs through the study area.

Due to the short-term temporary nature of the proposed surveys, and when viewed in context of the existing vessels already present in the area, no impacts to landscape and visual receptors are expected.

4.9 Traffic & Transport

EMODnet's shipping density and EMSA's route density shows an area of high-density shipping passing through the MUL area, shown in **Figure 4-8**. There are a number of vessels including cargo vessels and tankers entering Cork Harbour, with a defined route passing across the proposed works area from Cork across the Celtic channel into UK waters. Therefore, there is a risk of collision due to the presence of the survey vessels.

Surveys will be undertaken in compliance with the International Regulations for Preventing Collisions at Sea. Other measures which will be implemented to prevent risks to existing shipping and navigation include submission of Notice to Mariners covering each survey period and appropriate vessel lighting for navigational safety. In advance of any works commencing the SI contractor and other contractors will be provided with a schedule of shipping movements by PoCC.

The surveys will be short term and temporary, and there are no likely significant impacts expected to shipping.

A Marine Notice shall be published for the information of all local maritime users detailing the proposed works and any associated hazards to navigation arising for the duration of the licence period.

The marking and lighting of any additional buoyage used for the project shall be carried out in consultation with the Marine Survey Office and Commissioners of Irish Lights. Lighting and marking shall be complaint with International Association of Aids to Navigation (IALA) requirements. Information regarding the position of any marking which create hazard to navigation shall be promulgated to the mariner via publication of a marine notice and all available means appropriate.

All vessels engaged in the above must confirm to the Irish Certification standards and the vessels be manned by suitably qualified personnel. Where members of the public are carried who do not form an integral part of the crew, a passenger boat license must be applied for if not already in existence, additionally where equipment is carried an Irish Load line survey may be required. The applicant should contact the Marine Survey Office Dublin for clarification in relation to the above matters.





Figure 4-8: Shipping Vessels Routes Density 2022

4.10 Cultural Heritage

The National Monuments Service's (NMS) Wreck Inventory of Ireland Database (WIID) holds records of over 18,000 known and potential wreck sites in Irish waters. These records indicate that there are no wrecks within the area of the proposed SIs. The wrecks from the WIID in the vicinity of the MUL area are shown on **Figure 4-9**. There are no other records of wrecks recorded in the INFOMAR Shipwreck data within the proposed SI area.

Wrecks over 100 years old and archaeological objects underwater, irrespective of their age or location, are protected under Section 3 of the National Monuments (Amendment) Act 1987. It should also be noted that some wrecks that are less than 100 years old, or the potential location of wrecks or archaeological objects, may also be protected under Section 3 (subject to the placement of an underwater heritage order) if considered to be of sufficient historical, archaeological or artistic importance to merit such protection. The RMS Lusitania is one such example which was less than 100 years old when it was protected. Should further information on the survival or identity of these vessels become available, there is potential that these may also be afforded protection under the Act.

Further marine archaeological receptors comprise potential wrecks or aircraft crash sites, or associated debris, which may be present within the proposed works area but not yet discovered, and palaeo landscape features and deposits of palaeo environmental interest associated with the potential for submerged prehistoric sites.

There is potential for the proposed survey to impact these protected marine archaeology receptors. However, a number of measures will be in place in order to prevent impacts to these marine archaeology receptors, detailed below.

The proposed geophysical surveys will be carried out prior to the geotechnical surveys. The geophysical survey is non-invasive so will have no impact on archaeological receptors. The data from the geophysical surveys will be analysed in order to determine the scope of the intrusive works (geotechnical and benthic ecology surveys), to ensure the sample locations avoid wrecks and aircraft crash sites if identified, in addition to identified seabed features of potential archaeological interest. The scope of the geotechnical and benthic surveys will be planned to take account of geoarchaeological objectives as advised by a licenced marine geoarchaeology specialist where items of potential archaeological interest are identified by geophysical surveys.

During the geophysical surveys, if any significant archaeological finds are made, there may need to be further measures implemented, however they would be agreed with the DoHLGH if required, prior to the geotechnical and benthic ecology surveys being undertaken.

With the measures listed above implemented, it is considered there will be no significant negative impacts to marine archaeology due to the proposed surveys.

4.11 Population & Human Health

The villages of Whitegate and Aghada are the most notable built-up areas within proximity to the proposed works site. The village of Whitegate is home to several housing estates, a church, Whitegate National School, Whitegate Garda Station and several commercial enterprises. Amenity sites in the area comprise the Corkbeg AFC and Corkbeg Pitch and Putt Club and Whitegate Rowing Club. The population of Whitegate village, according to Central Statistics Office (CSO) data collected in 2022 is 1,248 people.

Aghada is home to a number of housing estates, the Aghada National School, a church and several commercial enterprises. Amenity sites in the area include a Sailing Club and a pier used for fishing and other water related amenities. According to data provided by the CSO taken in 2022, the population of Aghada is 1,159 people.

The proposed SI works are not predicted to cause any significant negative impacts on the local population given the location of the works offshore and the temporary nature of the works.

4.12 Climate

Due to the nature of the proposed surveys, there will be no releases to air other than from vessel exhausts, which will not exceed Air Quality standards. Given the scale and nature of the works, the fact that there are no impacts to air quality, and following standard good practice, and as required by law, to prevent accidental oil spillages, the proposed surveys will not impact climate in a significant negative way.

4.13 Waste

During the geophysical surveys, no. 20 boreholes will be drilled for sampling. Each borehole will have a small seabed footprint of approximately 0.03m², and a depth of up to 25m. There is expected to be approximately 15m³ of drill cuttings generated cumulatively during the borehole drillings. These drill cuttings will be brought up to surface level in a casing to prevent contact with the seawater. Once aboard the survey vessel, the sediment will be bagged and taken off site to be disposed of at a suitable facility.

There will be some suspended sediment in the water column during the drilling activity, but the elevations of suspended sediment in the water column are expected will be dispersed quickly by the tidal currents in the harbour and will have a negligible effect on the water quality in the area given their short-term nature.

4.14 Material Assets

There are no subsea cables or pipelines within the study area. The EXA Express subsea telecommunications cable does have a landing point in Cork. However, this cable does not interact with the proposed SIs. The short-term and temporary nature of the proposed SIs are deemed to have no significant negative impact on the material assets in the area.





Figure 4-9: Shipwrecks within the vicinity of the proposed Licence Area

5. Summary of Mitigations

The assessment carried out in this document is for environmental, geotechnical and geophysical surveys to evaluate the potential of the area for ORE infrastructure as part of the Port of Cork Masterplan 2050. It is a licence to carry out investigative surveys only and does not involve the development of any permanent structures within the proposed study area. The conditions above are considerate of the short-term nature of these works. The duration of the MUL being applied for is **5 years**. This will allow appropriate time for the completion of tendering and all required SIs. The surveys will provide a rounded view of the study area and its potential for ORE development, in line with the Port of Cork 2050 Masterplan.

A SISAA and Risk Assessment for Annex IV Species was also carried out to assess the impact of these surveys. The geotechnical and geophysical surveys have the potential to disturb marine mammals, and it is recommended that a MMO be hired for the duration of these SIs to reduce the potential impact on these species.

Disturbance to the seabed will happen over the course of the surveys, particularly regarding the sampling required of the geotechnical surveys. To prevent impacts on water quality in the area from the drilling, the cuttings will be encased and brought to surface level onto the survey vessel. Once abroad the survey vessel, the material will be bagged and taken offsite to be disposed of at a suitable facility. This mitigation significantly reduces the potential impact on the water quality in the vicinity of the survey area.

The implementation of the above mitigations will result in no long-term significant impacts to the environment in which the SIs are proposed.

Appendix 1

Site Layout Plan



