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MULTIDISCIPLINARY CONSULTING ENGINEERS

D866: NATIONAL WATERSPORTS CAMPUS DÚN LAOGHAIRE

COMPLIANCE WITH THE WATER FRAMEWORK DIRECTIVE

For
Dún Laoghaire-Rathdown County Council

20 January 2026

NOTICE

DOCUMENT CONTROL & HISTORY

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1 INTRODUCTION

1.1 PROJECT CONTRACTUAL BASIS & PARTIES INVOLVED

O'Connor Sutton Cronin & Associates Ltd. (OCSC) was contracted to carry out a Water Framework Directive Compliance note for the proposed temporary marine and coastal site investigation works associated with the Maritime Usage Licence (MUL) application in relation to the proposed National Watersports Campus in Dún Laoghaire. The results of the SI works will be used to inform the construction stage, the engineering design for the proposed National Watersports Campus and will also provide baseline data for preconstruction and monitoring assessments.

This Water Framework Directive (WFD) compliance note assesses the potential impacts of the proposed works at the Dún Laoghaire National Watersports Centre on the water environment, including water quality and hydrology, and has been prepared to support the Maritime Usage Licence (MUL) application.

Its objectives are to establish a baseline understanding of existing water conditions, identify any likely significant effects of the proposed site investigation (SI) works, define appropriate mitigation to avoid, remediate or reduce adverse impacts, and evaluate any potential residual or cumulative effects with other local projects.

In accordance with the Maritime Area Planning Act 2021 (as amended), the Maritime Area Regulatory Authority (MARA) must have regard to Directive 2000/60/EC (EU Water Framework Directive) and the associated national implementing legislation, including the European Communities (Water Policy) Regulations 2003 and the European Communities Environmental Objectives (Surface Water) Regulations 2009, before determining a MUL.

The WFD requires Member States to protect and enhance inland, transitional, coastal and groundwaters to achieve at least good ecological status by 2027, with additional protections applying to designated and sensitive areas such as bathing waters, nutrient-vulnerable zones, and Natura 2000 sites.

The report was completed by Eadaoin Butler BSc, Ecologist, reviewed by Rebecca Duane BSc, MCIEEM and authorised by Eleanor Burke, BSc, MSc, DAS, MIEnvSc, CSci, and OCSC Director (Environmental).

1.2 SI Works

Dún Laoghaire Harbour is a highly active marine environment, characterised by regular and frequent vessel movements, recreational watersports, commercial activity and public use throughout the year. The qualifying species associated with the adjacent European sites are therefore subject to, and considered habituated to, an existing high baseline level of anthropogenic activity and disturbance.

The proposed site investigation works will be temporary, localised and intermittent, will not involve dredging, land take, permanent structures or changes to coastal processes and will not result in habitat loss or long-term degradation. Any potential disturbance or water quality effects will be minor, short-term, and confined to the immediate vicinity of the works.

Five (5No.) MUL areas are involved in this application (Figure 1.1). MUL Area 4, (See Figure 1.2) is within an area designated as the South Dublin Bay and River Tolka Estuary Special Protection Area (SPA) as well as being in close proximity of South Dublin Bay SAC (0.2km).

The proposed SI works include a range of geotechnical and bathymetric survey methods including boreholes (sonic drilling or cable percussion boring followed by rotary core drilling), Vibrocore and Cone Penetration Testing (CPT) with a Multibeam survey of MUL Area 5.

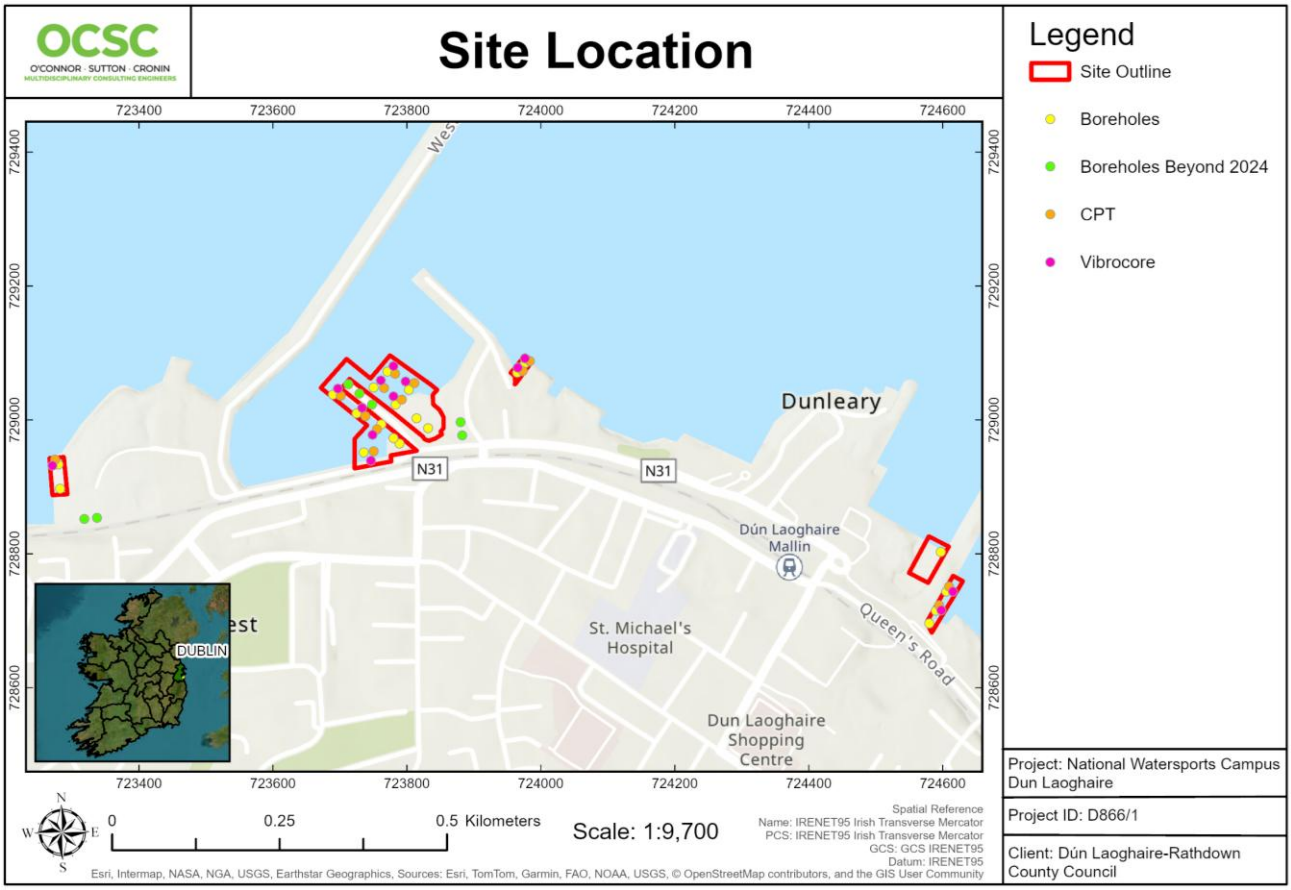

Figure 1.1; Location of proposed SI activities.

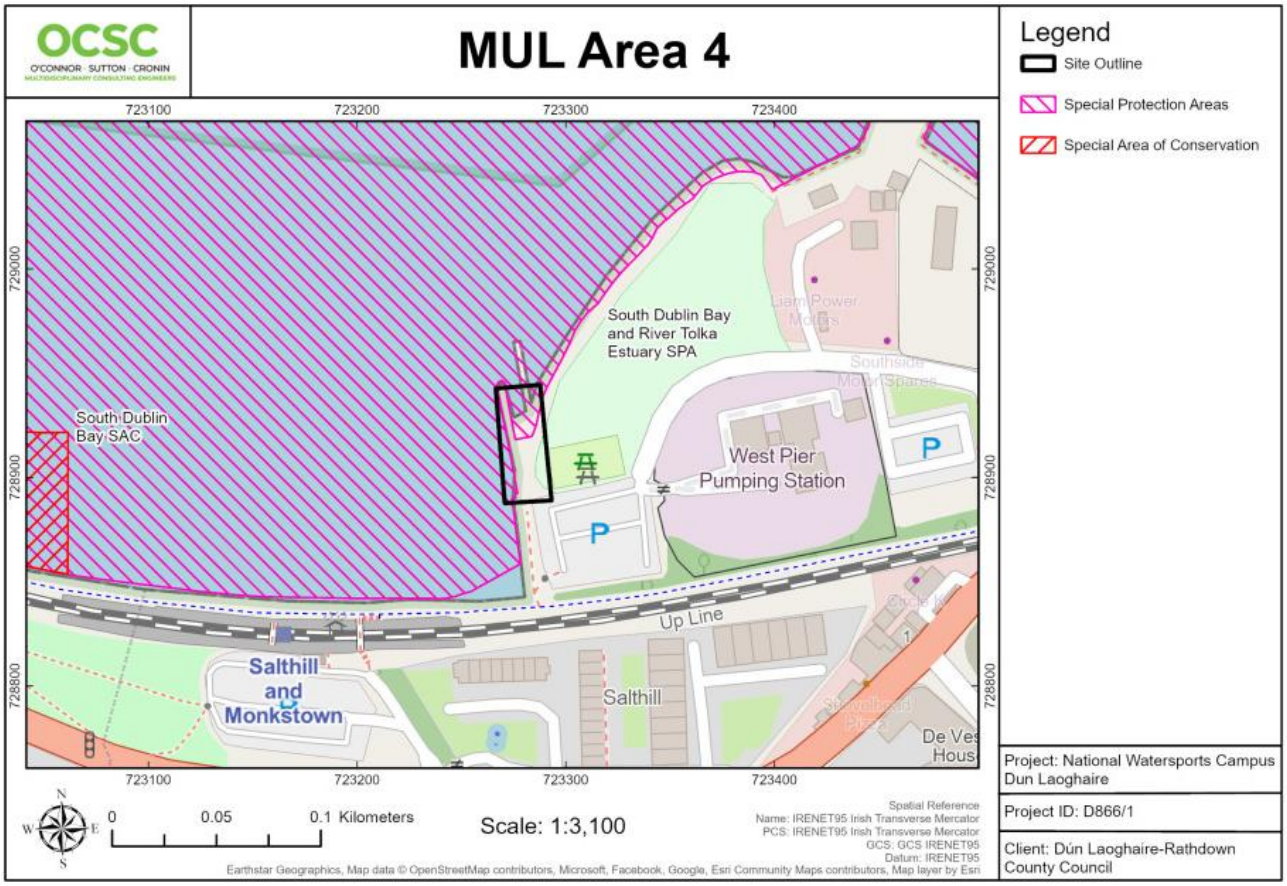

Figure 1.2; Overlap with MUL Area 4 and Natura 2000 sites.

1.3 EVIDENCE OF EXPERTISE

The technical competence of the authors is outlined below. Eadaoin Butler is a Project Ecologist with OCSC. She has over 4 years experience in the environmental science field. Eadaoin holds an honours degree in Wildlife Biology (Ecology) from Institute of Technology Tralee. She has delivered the environmental assessments for a wide range of marine and coastal projects, including environmental impact assessment, appropriate assessment and Annex IV species reports.

Rebecca Duane MCIEEM is a professional ecologist and full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) with extensive experience in ecological science and consultancy. She holds an honours degree in Ecology/Environmental Biology (BSc) and has developed strong technical expertise through several years of professional practice in environmental assessment, ecological survey, and biodiversity reporting. Rebecca has direct experience delivering ecological assessments for a wide range of development types, including terrestrial, coastal and marine-influenced projects. Her experience includes Preliminary Ecological Appraisals (PEAs), habitat and species surveys, Ecological Impact Assessments (EcIA), Appropriate Assessment (AA) screenings and Natura Impact Statements (NIS), and the preparation of biodiversity action/management sections for both planning and licence applications.

1.4 WATER FRAMEWORK DIRECTIVE

The EU Water Framework Directive (2000/60/EC) requires all Member States to protect and enhance water quality across all water bodies in order to achieve at least good ecological status by 2027. The Directive entered into force in 2000 and was transposed into Irish law through the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003, as amended). It applies to rivers, lakes and groundwater, as well as transitional and coastal waters. The Regulations provide the legal and administrative framework for implementing the Directive in Ireland, including governance arrangements, the characterisation and classification of water bodies, the setting of quality standards, environmental objectives and the development of programmes of measures to protect, improve and maintain water quality.

The key objectives of the Water Framework Directive are:

- To protect and enhance all inland surface waters (including rivers, lakes and artificial waters such as canals and reservoirs), transitional waters (estuaries), coastal waters and groundwater (aquifers) in order to achieve or maintain at least good ecological status.
- To ensure that the overall status of each water body does not deteriorate from the baseline reported in the River Basin Management Plan (RBMP).

1.4.1 THE RIVER BASIN MANAGEMENT PLAN (RBMP)

The Programme of Measures (PoM) sets out the actions required to achieve the objectives of the Water Framework Directive for each water body and is incorporated within the overarching River Basin Management Plan (RBMP). These measures are implemented at a strategic level and are also delivered at regional and local scales through the establishment of Regional Integrated Catchment Management Programmes.

In Ireland, the Water Framework Directive (WFD) is implemented through River Basin Management Plans (RBMPs). The current Third Cycle RBMP (2022–2027) builds on the first two cycles and sets out how rivers, lakes, estuaries, coastal waters and groundwater will be protected and restored in line with WFD objectives.

The Third Cycle RBMP takes a more focused approach to getting waters to good ecological and chemical status by 2027. It is supported by better governance, new regulatory tools and targeted investment.

The RBMP shows that about 46% of Ireland's surface waters are already at good or high status. The focus now is on maintaining those waters in good condition while implementing targeted measures to restore the rest.

This framework provides the regulatory context for the present WFD Assessment. The SI works at Dun Laoghaire must demonstrate that they will not cause deterioration of any waterbodies, will not prevent future attainment of good status for any waterbodies and will be consistent with the objectives and measures set out in the RBMP 2022–2027.

2 RECEIVING ENVIRONMENT

Dun Laoghaire Harbour has long been a focal point for marine activity on Ireland's east coast. Over time it has developed from a traditional ferry port into a vibrant centre for yachting and watersports, hosting high-profile international sailing championships and supporting a diverse range of marine organisations including state bodies, clubs, commercial operators, and volunteers. The harbour's role as a watersports hub has grown in response to increasing demand from a population of approximately 1.5 million people within a 10-mile radius.

Despite significant investment by private and club stakeholders, there is currently a notable lack of publicly accessible watersports facilities. At present, there are no slipways or public access points that offer tidal-independent access to the water. This project seeks to address this gap by establishing a National Watersports Campus that builds on the harbour's existing infrastructure and activity base.

This application seeks a Maritime Usage Licence (MUL) from the Maritime Area Regulatory Authority (MARA) to undertake a programme of site investigation (SI) works within the MUL application area (Figure 2.1). The SI work is designed to gather the geophysical, geotechnical, environmental and metocean data required to inform project design, environmental assessment and future consenting.

The MUL Area comprises 5No. areas, with area 4 falling within the South Dublin Bay and River Tolka Estuary SPA. The remaining 4No. areas all fall within Dún Laoghaire harbour and the Irish Sea. The activities proposed to be carried out within the MUL Area are shown on Figure 2.1.

The total combined MUL Area encompasses an area of 21,422m^2.

- Area 1 is Carlisle Event Slipway and encompasses an area of 1,506m^2.
- Area 2 is High Performance Pontoon and encompasses 674m^2.
- Area 3 is Coal Harbour Watersports and encompasses 13,956m^2.
- Area 4 is the Gut Slipway and encompasses 2,959m^2.
- Area 5 is the Events Building-Pier and encompasses 2,327m^2.

The proposed locations shown in the figures and drawings are subject to minor change based on the results of the geotechnical, bathymetric and environmental surveys. Locations may be required to be moved due to the presence of obstructions/difficulties at individual locations. In such instances, the borehole location is moved to another nearby location away from the obstruction and drilled again to the target depth.

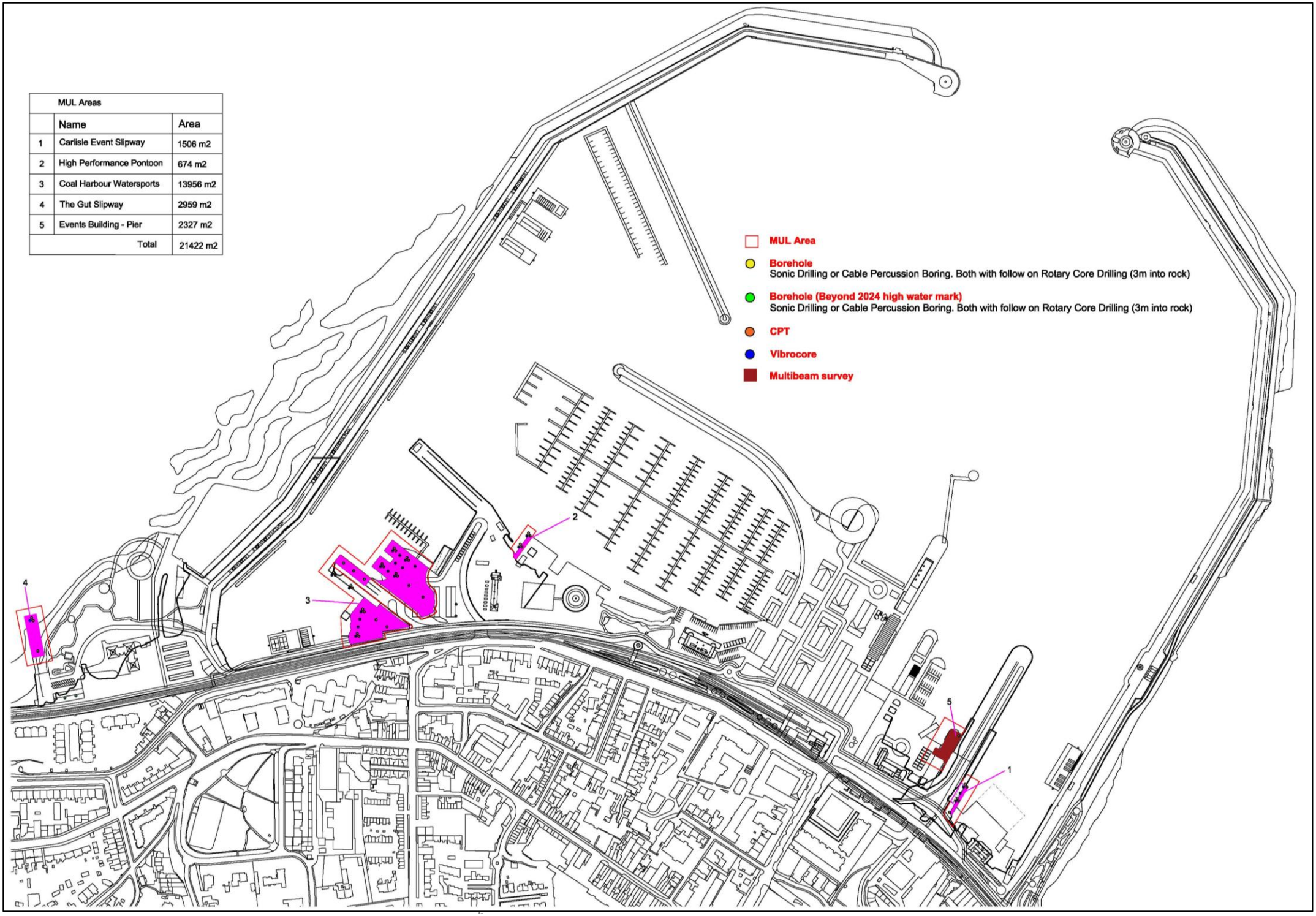

Figure 2.1; MUL areas in Dún Laoghaire Harbour.

2.1 WATER QUALITY

Dun Laoghaire Harbour is within the Dublin Bay Transitional waterbody (IE_EA_090_0000). Table 2.1 shows a list of waterbodies that are within or hydrologically connected to the SI Works area.

Table 2.1; Waterbodies in close proximity of the proposed SI Works.

Waterbody Name	Waterbody Code	Waterbody Type	Distance	Hydrologically Connected
Dublin Bay	IE_EA_090_0000	Coastal	Within site boundary (All areas)	Yes
Brewery Stream	IE_EA_09B130400	River	Within site boundary (MUL Area 4)	Yes
Irish Sea Dublin	IE_EA_070_0000	Coastal	3.25km E	Yes
Southwestern Irish Sea-Killiney Bay	IE_EA_100_0000	Coastal	3.58km SE	Yes
Liffey Estuary Lower	IE_EA_090_0300	Transitional	4.7km N	Yes

While there are hydrological links between the SI work areas and Irish Sea Dublin, Southwestern Irish Sea-Killiney Bay waterbodies, the distance from the site means that any impacts are extremely unlikely due to the dilution factor. Although mapped within MUL Area 4, Brewery stream is at the end of its reach and flows into the MUL Area. Therefore it is concluded that any degradation of water quality within the MUL Area has no feasible means of causing degradation to Brewery stream on account of it being upstream of the works area. Therefore, the only waterbody being considered for potential impacts is the Dublin Bay coastal waterbody.

Table 2.2 shows a list of bathing waters that are hydrologically connected to the SI Works area. No Bahting area has been identified within the area of proposed SI works. The closest bathing area is Dun Laoghaire Baths, located 422m south east of the nearest MUL Area (Area 4). While there are hydrological links between the SI work areas and Sandycove Beach and Forty Foot Bathing Places, the distance from the site means that any impacts are extremely unlikely due to the dilution factor. Therefore, only Dun Laoghaire Baths and Seapoint bathing waters will be considered for potential impacts.

Table 2.2; Bathing waters in close proximity of the proposed SI Works.

Bathing Water	Water Quality	Distance
Dun Laoghaire Baths	Excellent	422m SE
Seapoint	Excellent	452m W
Sandycove Beach	Excellent	1.27km SE
Forty Foot Bathing Place	Excellent	1.3km SE

Table 2.3; WFD Status of Waterbodies in close proximity to the proposed works.

Waterbody Name	2010-2015	2013-2018	2016-2021	2019-2024
Dublin Bay	Good	Good	Good	Good
Brewery Stream	Unassigned	Moderate	Poor	Poor
Irish Sea Dublin	Unassigned	Good	Good	Good
Southwestern Irish Sea-Killiney Bay	High	High	High	Good
Liffey Estuary Lower	Moderate	Good	Moderate	Moderate

2.2 POTENTIAL IMPACTS

There is potential for the proposed SI works to result in short-term effects on water quality and the overall status of the Dublin Bay coastal water body. In particular, drilling boreholes and removing sediment from the seabed may introduce small quantities of material into the water column. Any such effect is expected to be very localised, largely confined to the MUL area. Currents would rapidly disperse any suspended sediment, and levels are unlikely to exceed those normally associated with natural ebb and flood conditions. As a result, any change in water quality would be temporary and negligible in the context of WFD status, with conditions expected to return to baseline levels once the works are complete. The SI works will not increase the risk of deterioration in the overall WFD status of Dublin Bay which are currently at good status (see Table 2.3).

There is also a low risk that accidental spills from plant or vessels (e.g. jack-up) could affect water quality and WFD status. However, with the implementation of mitigation, this is considered unlikely. Any effects would be short-term and localised, with conditions expected to recover quickly following completion of the works.

A further consideration is the potential for the introduction of invasive non-native species via vessels and equipment used during the SI works. Appropriate biosecurity measures will therefore be applied to prevent the spread of invasive species.

The magnitude of potential impact is thought to be medium, resulting in a moderate impact prior to the implementation of mitigation. With the mitigation measures described below in place, the residual impact is expected to be minor and will not lead to any deterioration in the ecological or chemical status of hydrologically connected water bodies or compromise the achievement of their environmental objectives.

All other potential risks including seabed disturbance, increased suspended sediment concentrations, release of contaminants or nutrients, and underwater noise have been screened out on the basis that they are temporary, small-scale and effectively controlled through embedded mitigation.

2.3 MITIGATION

The following mitigation measures have been given to reduce negative impacts on the receiving environment from moderate to a minor residual impact.

- All plant and equipment will be cleaned and checked daily for leaks etc. before entering the site.
- No machinery is to be filled fully with fuel. Tanks should be no more than ¾ full.
- Refuelling will take place, where possible, remote from the site and within suitable oil receptors.
- Any refuelling on site will take place at the Contractor's site compound using a mobile, double-skinned fuel bowser.
- Only designated, trained, and competent operatives should be authorised to refuel plant.
- A spill response kit will be available onsite and accessible to all to control pollution incidents. These spill kits will contain absorbent pads, absorbent granules and methods of disposal of materials and used kit. These kits will be located at appropriate points around the Site which are considered to be at a higher risk of pollution (e.g. refuelling area and next to fuel tanks). Further spill kits and supplies will be located in the stores within the Site, where replacements for used kits will be found.
- Spill kits will need be regularly inspected and immediately replaced if used.
- Toolbox talks will be communicated to Site staff and contractors so that they are fully informed of refuelling procedures.

3 CONCLUSION

The assessment establishes that the only likely risk from the SI works is the potential introduction of invasive non-native species through the vessels and equipment used to carry out the works. With the mitigation measures in place, this risk is considered negligible.

On this basis, the proposed SI works will not cause any deterioration in the status of transitional, coastal or river water bodies or nearby bathing areas and will not compromise the achievement of good status under the Water Framework Directive. These conclusions are consistent with the objectives and measures set out in Ireland's River Basin Management Plan 2022–2027, which provides the national framework for WFD implementation.

This is also consistent with the findings of the supporting information provided with the application, SISAA and the Annex IV Species Risk Assessment, which both conclude that, the SI works will not result in significant effects on European sites, protected species or water-dependent receptors, either alone or in combination with other plans or project.

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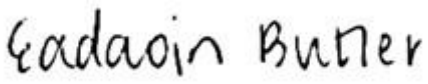
5 VERIFICATION

This report was compiled by Eadaoin Butler BSc; reviewed by Rebecca Duane, BSc, MCIEEM, Ecologist, and approved by Eleanor Burke, BSc, MSc, DAS, MIEnvSc, CSci, and OCSC Director (Environmental).



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