Dún Laoghaire Harbour Maritime Usage Licence Application for Site Investigation Works Supporting Information for Screening for Appropriate Assessment

Client	Dún Laoghaire-Rathdown County Council
Document Ref.	24157-03-01-SISAA
Project Title	Dún Laoghaire Maritime Usage Licence
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REVISION SUMMARY

Rev	Date	Section(s)	Detail of Change
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1 INTRODUCTION

1.1 PROJECT OVERVIEW

Dún Laoghaire Rathdown County Council proposes to undertake a suite of marine site investigation (SI) activities to assess the feasibility of potential future dredging within the harbour. The dredging aims to remove approximately 56,400 m^3 of material from Dún Laoghaire Harbour to achieve a target depth of -6.1 m.

Dún Laoghaire Harbour has prepared this report in support of an application for a Maritime Usage Licence (MUL) under the Maritime Area Planning Act (2021) to undertake SI activities to support dredging design. This submission does not constitute an application for dredging; a separate application for dredging activities will be submitted at a later stage.

The Maritime Usage Licence Application Area (hereafter referred to as MUL Area) is located entirely within Dún Laoghaire Harbour, approximately 12 km southeast of Dublin.

The proposed MUL Area is 0.2585 km^2 (25.85 ha); refer to Figure 1-1. All SI activities will remain entirely within the MUL Area.

The SI activities (and equipment) will include:

- Collection of sediment samples for sediment characterisation and chemical analysis (vibrocore);
- Ecological characterisation of the benthic environment (grab sampler and drop-frame camera system);
- Identification of potential hazards such as shipwrecks or other underwater features through geophysical surveys (side scan sonar and magnetometer).

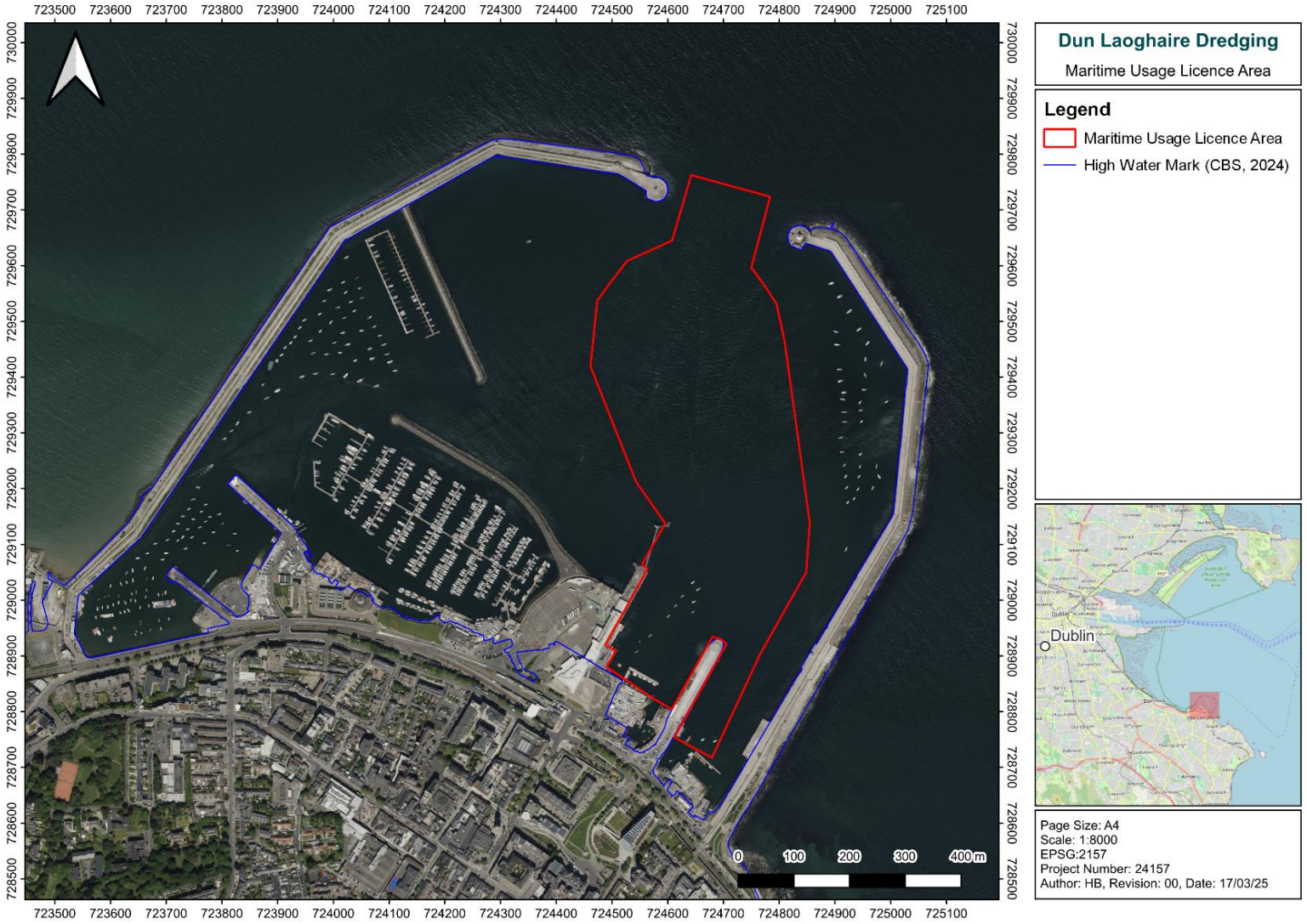

Figure 1-1 Maritime Usage Licence Application Area

1.2 APPROPRIATE ASSESSMENT

1.2.1 THE HABITATS DIRECTIVE

A key protection mechanism in the Habitats Directive is the obligation to carry out an Appropriate Assessment (AA) in accordance with Article 6(3), which stipulates that plans or projects likely to have a significant effect on a Natura 2000 site must be subject to a rigorous assessment of their implications for site conservation objectives.

In Ireland, the legislative framework for Appropriate Assessment is based on the European Union's Habitats Directive (92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna) and Birds Directive (2009/147/EC), both of which have been transposed into Irish law through the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011), as amended. These laws establish a network of protected areas known as Natura 2000, which includes Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Together they form a coherent network of protected areas (Special Areas of Conservation and Special Protection Areas), called Natura 2000, which is safeguarded against potentially damaging developments.

Under Article 6 of the Habitats Directive, as implemented in Ireland:

“Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 site) but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives”.

This legal requirement integrates conservation objectives into Ireland's planning and development processes, ensuring the protection of the country's most valuable and vulnerable natural habitats and species.

In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of Article 6(4), the competent national authorities shall agree to the plan or project only having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

1.2.2 DOMESTIC TRANSPOSITION

1.2.2.1 SCREENING

Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 requires, among other provisions, that where a project is not directly connected with or necessary for the management of a European Site, the public authority must undertake a screening for Appropriate Assessment. This screening must consider, using the best available scientific knowledge and the site's conservation objectives, whether the project—alone or in combination with other plans or projects—is likely to have a significant effect on the site.

Similarly, Section 177U of the Planning and Development Act 2000 (as amended) requires that the competent authority conduct a screening for Appropriate Assessment in relation to any application for development consent. This must assess, based on best scientific knowledge, whether the proposed development, either on its own or in combination with other plans or projects, is likely to significantly affect a European site.

1.2.2.2 APPROPRIATE ASSESSMENT

Regulation 42 of the 2011 Regulations provides, among other requirements, that a public authority must determine that an Appropriate Assessment is necessary where a project is not directly connected with or necessary for the management of a European Site, and where it cannot be ruled out—based on objective scientific evidence following screening—that the project, either alone or in combination with other plans or projects, may have a significant effect on the site.

Under Section 177V of the Planning and Development Act 2000 (as amended), the competent authority is required to carry out an Appropriate Assessment where a determination under Section 177U(4) has concluded that such an assessment is necessary. This must include a conclusion, in accordance with Article 6(3) of the Habitats Directive, as to whether the proposed development would adversely affect the integrity of the European site, prior to granting consent.

1.2.3 THE APPROPRIATE ASSESSMENT PROCESS

The European Commission's methodological guidance (EC, 2021) promotes a three-stage process to complete an AA and outlines the issues and tests at each stage. 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 steps and procedures involved in completing each stage, as described in the guidance, are shown below (Figure 1-2).

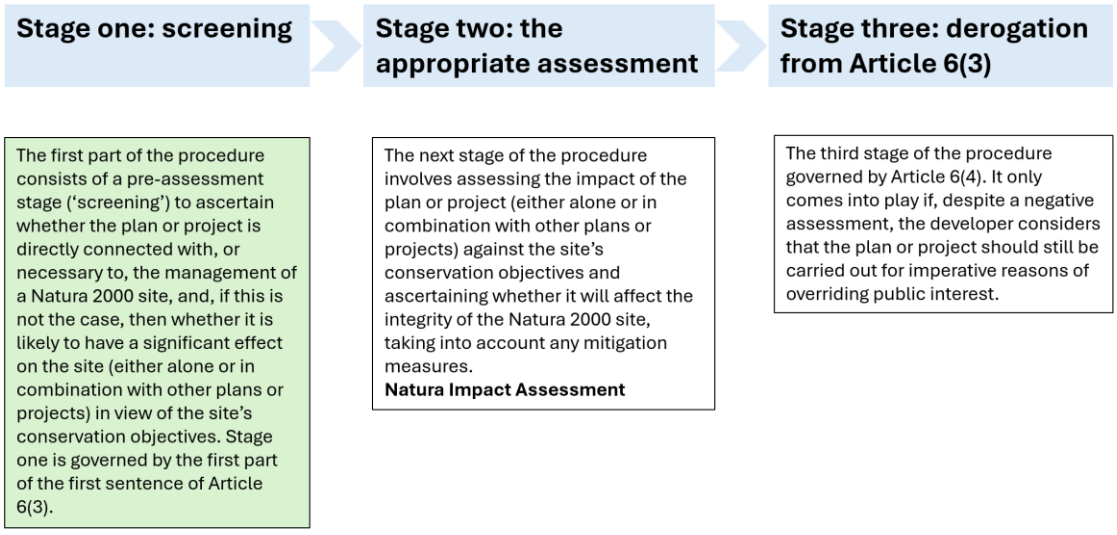

Figure 1-2 Stages in the AA process (EC, 2021)

Stage 1: Screening for Appropriate Assessment

Determines if a plan or project is directly related to site management or likely to have significant effects on a Natura 2000 site. If effects are likely or uncertain, the process must move to Stage 2. Mitigation is not considered at this stage.

Stage 2: Appropriate Assessment (AA)

Assesses whether the plan/project will adversely affect site integrity, including mitigation to avoid or reduce impacts. A Natura Impact Statement (NIS) is submitted to inform the competent authority's decision. If adverse effects cannot be ruled out, the process moves to Stage 3 or is abandoned.

Stage 3: IROPI/Derogation

Applies where a project with adverse effects must proceed for imperative reasons of overriding public interest and no less damaging alternatives exist. Compensatory measures must be identified, assessed, and approved by the Minister, with notification to the European Commission.

1.3 OBJECTIVE OF THE REPORT

This report is part of the Maritime Usage Licence (MUL) application to the Maritime Regulatory Authority (MARA) and aims to provide information documenting the current state of the environment in the vicinity of the proposed site investigation (SI) activities and on the potential effects from the proposed activities on the receiving environment. This report includes information to support Stage 1 (Screening for Appropriate Assessment) of the Appropriate Assessment process as required under the Habitats Directive (92/43/EEC).

The report aims to support the licence application process and provide the necessary information to the competent authorities to assist them in making an informed decision on the likely impact of this project on Special Areas of Conservation (SACs) and their designated Annex I habitats and Annex II species Qualifying Interests (QIs), and Special Protection Areas (SPAs) (including candidate SPAs (cSPAs)) and their designated Special Conservation Interests (SCIs).

The process of AA Screening is a determination as to whether:

a) The proposed activities are directly connected to or necessary to the management of a site as a European Site; and

b) In view of best scientific knowledge and in view of the conservation objectives of any European Site, and the proposed activities, individually or in combination with other plans or projects are likely to have a significant effect on European Sites.

Where it has been concluded that significant effects are likely, these effects are examined further in the Natura Impact Statement (NIS) which will accompany this MUL application (if required).

1.4 REPORT STRUCTURE

This report is structured into the following chapters, which include information relating to the Appropriate Assessment process, proposed activities and potential impacts and the receiving environment, including relevant Natura 2000 sites and features.

The structure of the following sections is:

- Methodology and Guidance -Section 2 outlines the methodology and guidance documents used to inform and aid in conducting the screening for appropriate assessment of the impacts of the proposed activities (if any) on European sites.
- Proposed Activities and Environmental setting -Sections 3 and 4 detail information on the environmental setting around the proposed application area and outline the proposed activities to be undertaken.
- Information for Stage 1 Screening Appraisal - Section 5 provides the examination, analysis and assessment of whether the proposed activities are likely to have a significant impact on any European sites. The assessment has been undertaken in consideration of best available

scientific knowledge of the Conservation Objectives of the sites concerned, taking into account the scale, duration, and timing of the proposed activities.

1.5 STATEMENT OF AUTHORITY

This report has been prepared by [redacted] (BSc. Hons Earth Science, MSc. Coastal and Marine Environments) and Maggie Starr (BSc. (Hons) Marine Sciences) and checked by [redacted] (BSc. Hons Geological Science, MSc. Geochemistry). This report has been reviewed by [redacted] (BSc (Hons) in Marine Biology, MSc in Ecology and Marine Conservation), and reviewed and approved by [redacted] (BSc. (Hons) Marine Science, MSc. Engineering in the Coastal Environment).

[redacted] is an Environmental Scientist at Venterra with experience in offshore cold-water coral mounds, coastal processes and coastal dune monitoring. Her current work includes environmental consulting, and she has experience working across marine licencing applications preparation for various projects involving document preparation and the production of relevant environmental mapping for offshore windfarm site investigations, metocean deployment, and port development site investigation activities. [redacted] also has experience with Environmental Impact Assessments reports and scoping report processes, data management, and environmental mapping production and support across multiple environmental aspects.

[redacted] is a Marine Ecologist and Ornithologist with experience in terrestrial, aquatic and marine/coastal ecology and is a trained Marine Mammal Observer (MMO). Her expertise includes specialised mammal, bird (land based and aerial) and habitat surveys, as well as freshwater surveys such as assessments for white-clawed crayfish, pearl mussels, and Biotic Indices (Q-values) Surveys. Her current work includes ecological and environmental desktop studies for terrestrial, aquatic and marine environments, specialised mammal surveys, ornithological surveys, map preparation and reporting (AA/NIS, EcIA, EIAR).

[redacted] is an Environmental Impact Assessment practitioner and Marine Scientist with coastal engineering expertise and extensive experience of offshore survey and Marine Protected Area monitoring, who has undertaken multiple environmental assessments for GDG and as a statutory adviser to the UK government and its devolved administrations with the Joint Nature Conservation Committee (JNCC).

2 METHODOLOGY

This section outlines the approach taken to AA screening, including a summary of relevant guidance, the methodology used to determine likely significant effects (LSEs), consideration of site-specific conservation objectives, assessment of ecological connectivity, and evaluation of potential in-combination effects with other plans or projects.

As the proposed works are not directly connected to or necessary for the management of a Natura 2000 site, this document focuses on assessing whether the works, alone or in combination with other plans and projects, are likely to have significant effects on any Natura 2000 site in view of their conservation objectives.

This report has been informed by a review of publicly available datasets and available scientific literature that has allowed the characterisation of the receiving environment and supported the identification and assessment of potential impacts and their significance. The sources of the information used are cited throughout the report and listed in the References section.

2.1 GUIDANCE ON APPROPIATE ASSESSMENT

The preparation of this report has been informed in accordance with the following guidance:

- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010 revision)
- Appropriate Assessment under Article 6 of the Habitats Directive; Guidance for Planning Authorities. Circular NPWS 1/10 and PSSP 2/10
- European Commission Notice C (2021) 6913 ‘Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC’, Office for Official Publications of the European Communities, Luxembourg (EC,2021).
- Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging. European Commission (EC, 2011a);
- European Commission Staff Working Document ‘Integrating biodiversity and nature protection into port development’ (EC, 2011b);
- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg (EC, 2000);
- Guidance to Manage the Risk to Marine Mammals from Manmade Sound Sources in Irish Waters. Prepared by National Parks and Wildlife Service, DAHG (2014).
- Guidelines for Good Practice: Appropriate Assessment of Plans under Article 6(3) Habitats Directive (International Workshop on Assessment of Plans under the Habitats Directive, 2011);
- Marine Natura Impact Statements in Irish Special Areas of Conservation: A working document. Prepared by National Parks and Wildlife Service, DAHG (2012).
- Managing Natura 2000 Sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (European Commission 2019).

- Office of the Planning Regulator – Practice Note 01 – PN01 (March 2021)

2.2 SCOPE OF ASSESSMENT

2.2.1 LIKELY SIGNIFICANT EFFECT

The likely significance effect test establishes whether any likelihood of significant effects on European sites can be ruled out.

'Likely' means a risk or possibility of effects occurring that cannot be ruled out based on objective information.

Significant effects are those that would undermine the conservation objectives of the European sites, either alone or in-combination with other plans and projects. The significance of ecological impacts depends on:

- the ecological characteristics of the species or habitat, including their structure, function, conservation status and sensitivity to change, and/or
- the character, magnitude, duration, consequences and probability of the impacts occurring.

The European Natura 2000 site information used in this assessment is based on the most up-to-date data available from the National Parks and Wildlife Service (NPWS, www.npws.ie), the Joint Nature Conservation Committee (JNCC, https://jncc.gov.uk/) and the European Commission (https://ec.europa.eu/environment/nature/natura2000/index_en.htm).

Note, candidate Natura 2000 Sites including cSPAs have also been considered, as have existing SACs with recently added QIs at the time of writing.

The European Commission's 2018 guidance (EC, 2019) clarifies that the trigger for Appropriate Assessment under Article 6(3) of the Habitats Directive is not the certainty but rather the possibility of significant effects from a plan or project, irrespective of whether it is located within or outside a designated site. An Appropriate Assessment is required where such effects cannot be excluded based on objective scientific evidence. The assessment of significance must take into account the specific ecological features and environmental conditions of the site in question, with particular reference to its conservation objectives.

The threshold for identifying a Likely Significant Effect (LSE) is above a *de minimis* level. A *de minimis* effect refers to a level of impact that is so minor that it need not be considered in relation to the ecological requirements of Annex I habitats or Annex II species populations essential to maintaining favourable conservation status. If low-level effects are deemed negligible and this conclusion is reached without reasonable scientific doubt, then such effects are not considered to constitute an LSE.

According to the European Commission (2021), a Stage 1 screening for Appropriate Assessment involves four key steps:

- Determining whether the plan or project is directly related to, or necessary for, the management of the Natura 2000 site;
- Identifying the components of the plan or project and their potential effects;
- Identifying any Natura 2000 sites that may be impacted, including cumulative effects with other plans or projects;

- Assessing whether, in light of the site's conservation objectives, likely significant effects can be ruled out.

Case law from the Court of Justice of the European Union (CJEU) has affirmed that an LSE is deemed to occur when:

- There is a real possibility or risk of the plan or project affecting a European site;
- The project could potentially undermine the site's conservation objectives;
- A significant effect cannot be excluded on the basis of objective scientific information.

The European Commission (2021) further defines a Likely Significant Effect as any effect that can be reasonably foreseen as resulting from a plan or project and that could negatively and significantly impact the conservation objectives of habitats or species for which the Natura 2000 site is designated. These effects may arise from activities either within the site or from external sources, including cumulative impacts with other plans or projects.

The requirement for an effect to be “significant” is intended to exclude trivial or negligible effects. Therefore, plans or projects with no appreciable or discernible impact on a Natura 2000 site fall outside the scope of Article 6(3).

2.2.2 CONSERVATION OBJECTIVES

Under the Habitats Directive, the Conservation Objectives of a European site aim to ensure that the Annex I habitats and/or Annex II species for which the site is designated are maintained or restored to favourable conservation condition.

For SAC habitats, this condition is considered favourable when:

- The natural range and area covered are stable or increasing;
- The structure and ecological functions required for long-term maintenance are present and likely to persist;
- The conservation status of typical species associated with the habitat is favourable.

For SAC species, favourable conservation condition is achieved when:

- The species maintains itself on a long-term basis as a viable component of its natural habitats;
- Its natural range is stable or increasing;
- Sufficient habitat exists, and is likely to continue to exist, to support the population in the long term.

For SPA species, favourable conservation condition is achieved when:

- The long-term population trend is stable or increasing
- There is no significant decrease in the range, timing and intensity of use of areas
- There is no significant decline in the passage of population individuals, distribution of roosting areas, or availability of prey biomass.
- No significant increase in barriers to connectivity

- Disturbance at roosting sites from human activity don not adversely affect number or post-breeding aggregations.

Detailed Site-Specific Conservation Objectives (SSCOs) have been published by NPWS for many European sites since 2011. These provide measurable targets for individual habitats and species, facilitating more precise assessments. The SSCOs for the European sites within Dublin Bay considered in this assessment are outlined in Section 4.1. While SSCOs may be periodically updated, assessments remain valid provided the most recent available version at the time of assessment is used, and the version and publication date are clearly cited.

In accordance with guidance from the European Commission (EC, 2019), it is essential that Appropriate Assessment considers not only the potential for effects arising within a European site, but also those resulting from external activities - that is, pressures from plans or projects located outside the site boundary that may nonetheless affect its conservation objectives. This appraisal has therefore taken into account the potential for such effects on habitats and species both within and outside the site boundaries, where those effects could influence the achievement of site-specific conservation objectives.

2.2.3 IN-COMBINATION EFFECTS

Article 6(3) of the Habitats Directive requires that potential **in-combination effects** with other plans or projects be assessed as part of the Appropriate Assessment process. According to EC (2019), the significance of cumulative effects is influenced by factors such as the nature, scale, duration, intensity, and timing of potential impacts, as well as the sensitivity of the receptors involved. Although the Directive does not specify which other plans or projects must be included, the intention is to capture cumulative impacts that may not be apparent when considering the project in isolation.

In this regard, the in-combination assessment may include:

- Plans or projects that are completed, approved but not yet constructed, or formally proposed (i.e. where an application for consent has been submitted).

EC (2021) further notes that while in-combination assessments may be less detailed at the screening stage than at full Appropriate Assessment, there remains a requirement to identify other relevant plans or projects that could give rise to cumulative impacts. Where clear conclusions cannot be drawn at the screening stage, such projects should be flagged for further analysis during the Appropriate Assessment.

2.2.4 PRECAUTIONARY PRINCIPLE

The precautionary principle is derived from the EU Treaty and developed in case law (European Commission, 2000). It applies at appropriate assessment stage and means that where the most reliable information available leaves obvious doubt as to the absence of significant effects (OPR, 2021). The assessment must be robust and based on the best up-to-date scientific knowledge and able to rule out all reasonable scientific doubt that the proposal would not have an adverse effect on the integrity of the site (Department of Environment, Heritage and Local Government, 2010 revision).

The examination, analysis and evaluation of the relevant information that supported the Appropriate Assessment process conducted and documented in this report has followed the precautionary principle throughout.

2.2.5 ASSESSMENT OF CONNECTIVITY

In determining the connectivity of the impacts of the proposed activities to relevant features and sites, guidance issued by the Office of the Planning Regulator (OPR, 2021) was used to inform application of the Source-Pathway-Receptor (S-P-R) model.

“A European site will only be at risk from likely significant effects where the Source-Pathway-Receptor link exists between the proposed development and the European site” (OPR, 2021).

For an effect to be established, all three elements of Source-Pathway-Receptor model must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) – Identifies the activities associated with the Proposed Development and types of impacts e.g., noise generated by dredging activities.
- Pathway(s) – Route that a hazard/impact takes to reach the receptor e.g., water as a pathway for underwater noise propagation; and,
- Receptor(s) – A Qualifying Interest (QI), Special Conservation Interest (SCI) or ecological feature utilised by the QIs or SCIs of a European site, e.g., qualifying habitats and species of European sites.

This includes consideration of the conservation objectives specified to maintain or restore favourable conservation status of SACs and SPAs, which are intrinsically linked to the QIs and SCIs for which these sites are designated.

3 ENVIRONMENTAL SETTING

This section describes the environmental context of the proposed Site Investigation (SI) area, providing an overview of the site location and its ecological setting. It includes a summary of baseline information relevant to ornithology, marine mammals, Annex I habitats, and the presence and proximity of Natura 2000 sites. The purpose of this section is to characterise the existing receiving environment and identify ecological sensitivities that inform the assessment of potential effects.

3.1 SITE OVERVIEW

The immediate receiving environment of the MUL area at Dún Laoghaire consists of port infrastructure and marine habitats. The MUL area, and surrounding area, is influenced by man-made infrastructure which is shaped by the port and harbour facilities and artificial structures. Dún Laoghaire Harbour has a 200-year history of use with an entrance spanning 232m and encloses four principal inner harbours: the Old Harbour, Coal Harbour, Marina Harbour and the Main Harbour. It is a busy port for vessels and cruise ships, and provides a sheltered area for marine leisure and recreation (Stephen Litte Associates, 2015).

Further information and relating to the surrounding environmental settings on biodiversity is also provided in the accompanying AIMU document (24157-REP-002) and RAAIVS (24157-REP-004) submitted as part of this application.

3.2 ORNITHOLOGY

Birds are regularly recorded within Dún Laoghaire Harbour, with bird species using the area for foraging and roosting, particularly during the non-breeding season. Bird surveys conducted in 2014 and 2015 as part of the Dún Laoghaire Harbour Environmental Impact Statement (Stephen Little Associates, 2015) recorded:

- 18 SCIs for SPAs within 15km of the Harbour were identified, including Black-headed Gull (*Chroicocephalus ridibundus*), Dunlin (*Calidris alpina*), Cormorant (*Phalacrocorax carbo*), Guillemot (*Uria aalge*), Herring Gull (*Larus argentatus*), Oystercatcher (*Haematopus ostralegus*), Redshank (*Tringa totanus*), Ringed Plover (*Charadrius hiaticula*) and Turnstone (*Arenaria interpres*).
- Tern species were observed feeding of the end of the East Pier, with a peak of 125 common terns (*Sterna hirundo*) recorded, although no breeding activity was recorded within the harbour.

The nearest designated Natura 2000 site relevant to ornithology is the South Dublin Bay & River Tolka Estuary SPA, located approximately 0.07 km to the north of the proposed MUL area. This SPA is designated primarily for wintering waders and waterbirds, as well as for breeding tern species.

3.3 MARINE MAMMALS

The Risk Assessment for Annex IV Species (RAAIVS) submitted with this MUL application (document reference number 24157-REP-004-01) provides an overview of cetacean species relevant to Dún

Laoghaire Harbour and its surrounding waters. The AIMU gives an overview of pinnipeds relevant to the Harbour.

Dún Laoghaire Harbour is a busy, partially enclosed urban port environment, which limits its suitability for regular use by marine mammals. Harbour porpoise (*Phocoena phocoena*) is the most frequently recorded cetacean species in the area, with occasional sightings of bottlenose dolphins (*Tursiops truncatus*) and unidentified small cetaceans also reported. Grey seals (*Halichoerus grypus*) and, less frequently, harbour (common) seals (*Phoca vitulina*) have been observed within and adjacent to the harbour; however, no haul-out or breeding sites are known to occur within the MUL Area. The nearest SAC designated for marine mammals is Rockabill to Dalkey Island SAC, located 2.63 km to the west of the MUL Area (Figure 3-1).

3.4 ANNEX I HABITATS

There are no Annex I habitats spatially overlapping with the Dún Laoghaire Harbour MUL Area. The Annex I habitats designated within SACs that are in the vicinity of the MUL Area are provided in Figure 3-1. The nearest SAC designated for Annex I habitats is the South Dublin Bay SAC 1.9 km from the MUL Area.

Information on benthic habitats within the harbour are detailed in the AIMU report (document reference number 24157-REP-002-01).

3.5 NATURA 2000 SITES

The evaluation of the site itself is an important factor in defining the appropriate study area. Dún Laoghaire Harbour is a busy and anthropogenically modified environment, which reduces the likelihood that it plays a significant functional role for the Qualifying Interests (QIs) or Special Conservation Interests (SCIs) features of nearby Natura 2000 sites which are typically found in relatively undisturbed coastal sites.

When considering potential ex-situ effects on QIs/SCIs of Natura 2000 sites, the S-P-R model is applied to determine whether a pressure from the proposed activities can be meaningfully linked to a sensitive ecological feature. A likely significant effect on a QI/SCI and its conservation objectives can only be established where a plausible and uninterrupted S-P-R linkage exists.

There are a number of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) in the immediate vicinity of Dún Laoghaire which are shown in Figure 3-1 and Figure 3-2. The Qualifying Interests and Special Conservation Interests SCIs of these SACs and SPAs are provided in Table 3-1 and Table 3-2, respectively.

This SISAA focuses on SACs and SPAs in the vicinity of the proposed MUL Area, given the short duration, small spatial scale, and the confined nature of the proposed SI activities, which will all be undertaken within Dún Laoghaire Harbour.

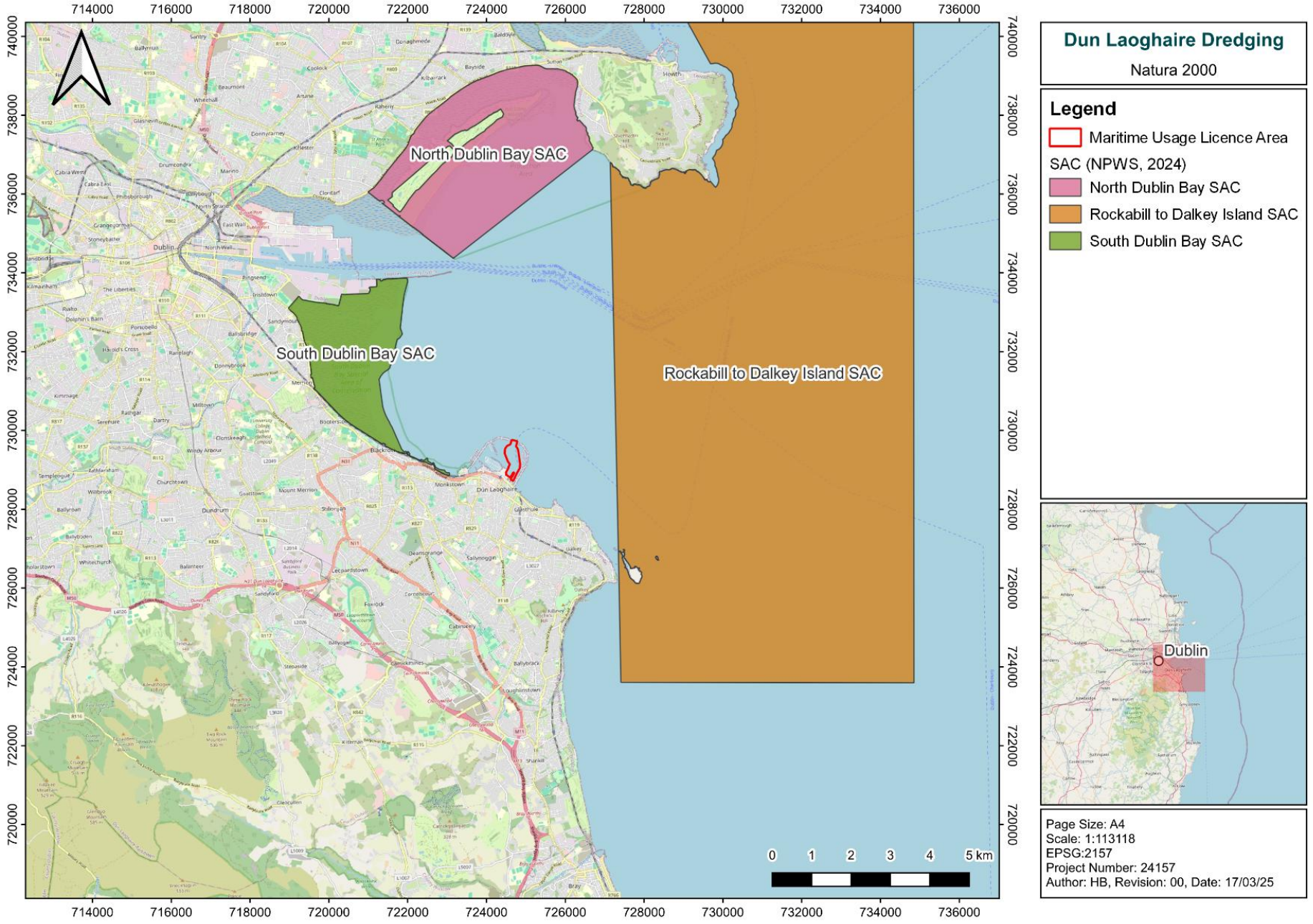

Figure 3-1 SACs within the vicinity of the MUL area

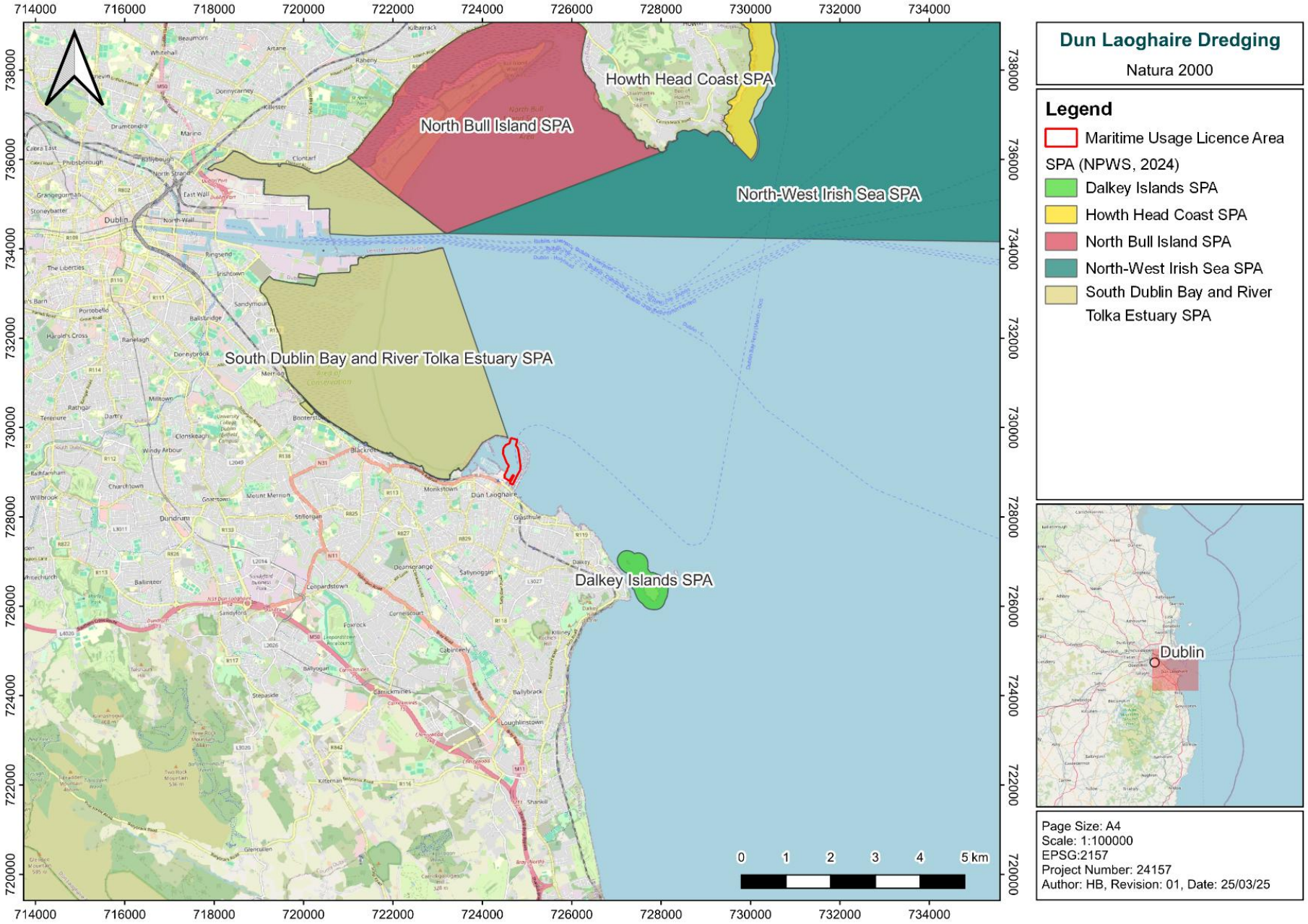

Figure 3-2 SPAs within the vicinity of the MUL area

Table 3-1 SACs and their Qualifying Interests in vicinity of MUL Area (* denotes QIs added in 2024)

SAC Site Name and Code	Distance (km) to MUL Area	Qualifying Interest (QI)	
		Annex I Habitats	Annex II Mobile Species
South Dublin Bay SAC (000210)	1.9 (seaway distance)	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	none
Rockabill to Dalkey Island SAC (03000)	2.63	Reefs [1170]	*Phocoena phocoena* (Harbour Porpoise) [1351]
North Dublin Bay SAC (003000)	5.36	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dune) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] *Petalophyllum ralfsii* (Petalwort) [1395]	none
Baldoyle Bay SAC (000199)	13.5	Mudflats and sandflats not covered by seawater at low tide [1140]	none

SAC Site Name and Code	Distance (km) to MUL Area	Qualifying Interest (QI)	
		Annex I Habitats	Annex II Mobile Species
		Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410]	
Lambay Island SAC (000204)	21.7	Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	*Phocoena phocoena* (Harbour Porpoise) [1351] *Halichoerus grypus (*Grey Seal) [1364] *Phoca vitulina* (Harbour Seal*)* [1365]

Table 3-2 SPAs and Special Conservation Interestsin vicinity of MUL Area

SPA Site Name and Code	Distance (km) to MUL Area	Special Conservation Interest (SCI)
South Dublin Bay and River Tolka Estuary SPA (004024)	0.07	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Oystercatcher (*Haematopus ostralegus*) [A130] Ringed Plover (*Charadrius hiaticula*) [A137] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Redshank (*Tringa totanus*) [A162] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Wetland and Waterbirds [A999]
Dalkey Islands SPA (004172)	3.19	Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194]

SPA Site Name and Code	Distance (km) to MUL Area	Special Conservation Interest (SCI)
North-west Irish Sea SPA (004236)	5.06	Red-throated Diver (*Gavia stellata*) [A001] Great Northern Diver (*Gavia immer*) [A003] Fulmar (*Fulmarus glacialis*) [A009] Manx Shearwater (*Puffinus puffinus*) [A013] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Common Scoter (*Melanitta nigra*) [A065] Little Gull (*Larus minutus*) [A177] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184] Great Black-backed Gull (*Larus marinus*) [A187] Kittiwake (*Rissa tridactyla*) [A188] Roseate Tern (*Sterna dougallii*) [A192] Common Tern (*Sterna hirundo*) [A193] Arctic Tern (*Sterna paradisaea*) [A194] Little Tern (*Sterna albifrons*) [A195] Guillemot (*Uria aalge*) [A199] Razorbill (*Alca torda*) [A200] Puffin (*Fratercula arctica*) [A204]
North Bull Island SPA (004006)	5.29	Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Knot (*Calidris canutus*) [A143] Sanderling (*Calidris alba*) [A144] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169]

SPA Site Name and Code	Distance (km) to MUL Area	Special Conservation Interest (SCI)
Howth Head Coast SPA (004113)	8.59	Kittiwake *(Rissa tridactyla*) [A188]

4 PROPOSED SI ACTIVITIES

4.1 SI ACTIVITIES

The following activities are proposed. Note these activities are described in further detail in Table 2-1 of the AIMU Report which accompanies this application (document reference number 24157-REP-002).

- Vibrocore sampling (up to 16 cores)
- Grab and drop-frame camera system sampling (up to 30 stations)
- Side Scan Sonar (SSS) survey
- Magnetometer survey

The proposed SI activities are located entirely within the Dún Laoghaire Harbour. These activities are short in duration (anticipated 2 – 3 weeks, weather permitting) and spatially limited.

They will be undertaken using one or two low-speed survey vessels operating within the confines of the harbour.

4.2 POTENTIAL PRESSURES

The following potential pressures which could lead to effects on Natura 2000 sites were considered as part of the screening process:

- Localised habitat disturbance or loss
- Increased suspended sediment concentrations
- Temporary reduction in water quality
- Temporary disturbance or displacement of species from underwater noise

Each of these potential pressures has been considered with respect to their spatial and temporal scale and their potential to result in a likely significant effect (LSE) on Qualifying Interest (QI) and Special Conservation Interest (SCI) features of nearby Natura 2000 sites.

5 STAGE 1 SCREENING APPRAISAL FOR APPROPRIATE ASSESSMENT

5.1 DIRECTLY CONNECTED WITH OR NECESSARY TO THE MANAGEMENT OF THE SITE

The proposed SI activities are not directly connected with, nor necessary to, the management of any European site.

5.2 ESTABLISHING AN IMPACT PATHWAY

This section identifies and assesses potential impact pathways between the proposed site investigation (SI) activities and relevant Natura 2000 sites. The assessment considers the nature, location, timing, and duration of the works, as well as the ecological sensitivities of designated sites and their qualifying features. Each potential impact is evaluated individually to determine whether there is any risk of likely significant effects (LSEs) on the integrity of Natura 2000 sites.

Note given the existing high levels of marine traffic within this active and commercially used harbour, the addition of one or two survey vessels is not anticipated to result in a measurable increase in airborne noise. Similarly, the physical presence of one additional vessel is not expected to give rise to any notable disturbance or displacement of QIs or SCI bird species beyond what already occurs under baseline conditions with routine port activity. Therefore, vessel-related impacts – including both airborne noise and physical presence - are considered negligible. This potential pressure has therefore been scoped out from further assessment.

5.2.1 LOCALISED HABITAT DISTURBANCE OR LOSS

Habitat disturbance associated with grab and vibrocore sampling will be minor, localised, and temporary, affecting only small areas of benthic habitat within the confines of the MUL area.

The proposed SI activities are located outside the boundaries of any Natura 2000 site and will not result in the direct loss of or disturbance to habitat within any designated site.

The benthic habitat within the MUL area is not considered an important foraging area for QI marine mammals or SCI birds.

LSEs effects arising from habitat disturbance on any Natura 2000 Sites are therefore **excluded at the screening stage**.

5.2.2 INCREASED SUSPENDED SEDIMENT CONCENTRATIONS

Suspended sediments generated during the grab and vibrocore sampling will be confined to the immediate point of disturbance and will settle quickly within the sheltered environment of the harbour. Increases to suspended sediment concentrations will be minor, localised and temporary.

There is no hydrological or ecological pathway to Annex I benthic habitats within any SACs in the wider marine environment.

Accordingly, LSEs on any Natura 2000 sites as a result of suspended sediment generation **are excluded at the screening stage**.

5.2.3 TEMPORARY REDUCTION IN WATER QUALITY

The proposed SI activities are not expected to result in any measurable reduction in water quality. No discharges of harmful substances are proposed, and all works will adhere to standard best practice environmental protocols, including compliance with **MARPOL regulations** for pollution prevention.

While there is an inherent low-level risk of accidental pollution from vessel operations or equipment (e.g. minor spills of hydrocarbons or lubricants), this risk is considered negligible given the small scale and short duration of the works, which will involve the use of one or two workboats. These activities are consistent with typical vessel movements that routinely occur within the busy and controlled environment of Dún Laoghaire Harbour.

Any accidental release would be subject to dispersion, dilution, and potential biodegradation within the harbour basin before reaching open waters.

Given these factors, LSE on Natura 2000 sites as a result of water quality impacts are considered negligible and **excluded at the screening stage**.

5.2.4 TEMPORARY DISTURBANCE OR DISPLACEMENT FROM UNDERWATER NOISE

The noise risk assessment presented in the RAAIVS confirms that the predicted underwater noise levels from the use of SSS and vibrocore sampling fall below the thresholds associated with permanent threshold shift (PTS) or temporary threshold shift (TTS) for marine mammals. Moreover, SSS equipment operates at frequencies well above the functional hearing range of all relevant marine mammal hearing groups, and sound is expected to attenuate rapidly in the shallow and enclosed waters of Dún Laoghaire harbour. Therefore, the risk of injury or significant behavioural disturbance on QI marine mammals is negligible.

These findings are directly relevant for the assessment of QI features of nearby SACs, particularly harbour porpoise (*Phocoena phocoena*), bottlenose dolphin (*Tursiops truncatus*), grey seal (*Halichoerus grypus*) and harbour seal (*Phoca vitulina*).

LSEs arising as a result of disturbance or displacement upon any Natura 2000 Sites are **excluded at the screening stage**.

Given the short duration, confined nature, and low-impact scope of the proposed SI activities, no significant effects on marine mammals or other Annex IV species are anticipated. Recent research (Berrow *et al*., 2024) has shown that pinnipeds in Dublin Bay continue to use haul-out sites even during nearby marine construction activity, further supporting the conclusion that the works are unlikely to cause displacement or disturbance.

5.2.5 SUMMARY

Using the S–P–R model, no viable source of impact was identified that could give rise to a pressure capable of affecting the conservation objectives of any nearby SAC or SPAs. The zone of impact[1] associated with all potential pressures is extremely limited, confined entirely within Dún Laoghaire Harbour, and reflects the short duration and low-impact nature of the SI activities. This is further reinforced by the existing environmental setting — a busy and operational port already subject to ongoing anthropogenic effects.

Consequently, no LSE on the qualifying features or conservation objectives of any nearby SACs or SPAs are anticipated, and the potential pressures described above have been **excluded at the screening stage**.

5.2.6 CONCLUSION

Based on the application of the Source–Pathway–Receptor (S–P–R) model and the findings of the accompanying RAAIVS (document reference number 24157-REP-004-01), it is concluded that the proposed SI activities will not result in any likely significant effects on the qualifying interest (QI) features of SACs or the special conservation interest (SCI) features of SPAs in the vicinity.

No viable impact pathways have been identified, and all potential pressures are localised, temporary, and minor in nature. The environmental setting - being a highly modified and operational port - does not provide functional support for the conservation objectives of any nearby Natura 2000 sites. In addition, the SI works are anticipated to be carried out during the winter months, *i.e.* outside the breeding bird season, further reducing the potential for disturbance to SCI bird features and their conservation objectives.

As such, the proposed works can be screened out at Stage 1, and progression to Appropriate Assessment Stage 2 (Natura Impact Statement) is not required.

5.3 IN-COMBINATION EFFECTS ASSESSMENT

Given the short duration, confined spatial extent, and low-impact nature of the proposed SI activities within Dún Laoghaire Harbour, no significant effects on the receiving environment or on any Natura 2000 site are anticipated. As such, there is no mechanism by which in-combination effects with other plans or projects could occur. Therefore, no in-combination effects are considered likely.

Due to the highly localised and temporary nature of the works, there is no potential for transboundary effects to arise. The activities will not result in pressures that could extend beyond Irish waters or affect European sites outside the jurisdiction.

[1] The *zone of impact* refers to the geographical area within which measurable environmental effects from a proposed activity are expected to occur, either directly or indirectly. It is defined by the nature, intensity, duration, and spatial extent of the activity and takes into account environmental conditions (e.g. hydrodynamics, existing disturbance) that may influence how far and in what ways impacts propagate. The zone of impact is used to inform the appropriate spatial scale for assessment of potential effects on ecological receptors and designated sites.

5.4 CONCLUSION OF THE SCREENING APPRAISAL

This screening appraisal has considered the nature, extent, duration, and intensity of the proposed site investigation (SI) activities within Dún Laoghaire Harbour, along with the environmental setting and proximity to European sites. The appraisal has also reviewed potential impact pathways to Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of nearby SACs and SPAs, using the Source-Pathway-Receptor (S-P-R) model.

Given the short duration (anticipated 2–3 weeks), limited spatial footprint, and low-impact nature of the proposed SI activities—coupled with the highly modified, anthropogenically influenced setting of Dún Laoghaire Harbour—no potential for likely significant effects (LSE) on the conservation objectives of any European site has been identified. All potential pressures (e.g. habitat disturbance, sedimentation, noise, water quality, and vessel traffic) are confined to a very limited zone of impact within the harbour and have been assessed as not resulting in measurable change to QI or SCI features.

Accordingly, it is concluded that the proposed SI activities, either alone or in combination with other plans or projects, will not result in significant effects on any European site, and therefore, a Stage 2 Appropriate Assessment is not required.

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venterra

www.venterra-group.com
info@venterra-group.com