MERC Consultants
environmental and conservation services

Natura Impact Statement

Uisce Éireann Southeast Coast Strategic Model

Document control			
Document reference: NIS_11112025-D0.3.1			
Version	Date	Issue	Author
D0.2	12/08/2024	Final	MERC
D0.3.1	11/11/2025	Revised to address MARA AA requirements per Section 117(6)(a)	MERC

Prepared for submission to MARA to enable Appropriate Assessment under Regulation 42 of S.I. 477 of 2011.

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1. Introduction

Uisce Éireann wish to conduct a strategic modelling study of water currents and bathymetry along the Southeast coast of Ireland. The study requires the deployment of up to nine static Acoustic Doppler Current Profilers (ADCPs) at separate locations within the study area. Ancillary instruments, to collect salinity and temperature data, may also be contained within the trawl resistant frames in which the ADCPs will be deployed. Boat based ADCP surveys and a bathymetric survey (multibeam and single beam) are also required.

A full description of the proposed project and its associated scope of works is presented in the Supporting Information for Screening for Appropriate Assessment (SISAA), (MERC, 2024).

Based on the SISAA (MERC, 2024) and MARAs Screening for Appropriate Assessment (MARA, 2025) this report represents a Natura Impact Statement (NIS) for the proposed project.

This Revised Natura Impact Statement (NIS) has been prepared to address the requirements of the Maritime Area Regulatory Authority (MARA) as set out in its notice of 30 October 2025 under Section 117(6)(a) of the Maritime Area Planning Act 2021. MARA determined that an Appropriate Assessment (AA) is required for the proposed maritime usage. This revision therefore provides the information necessary for MARA, as the competent authority under Section 117 of the Maritime Area Planning Act 2021, to carry out an Appropriate Assessment in accordance with Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011.

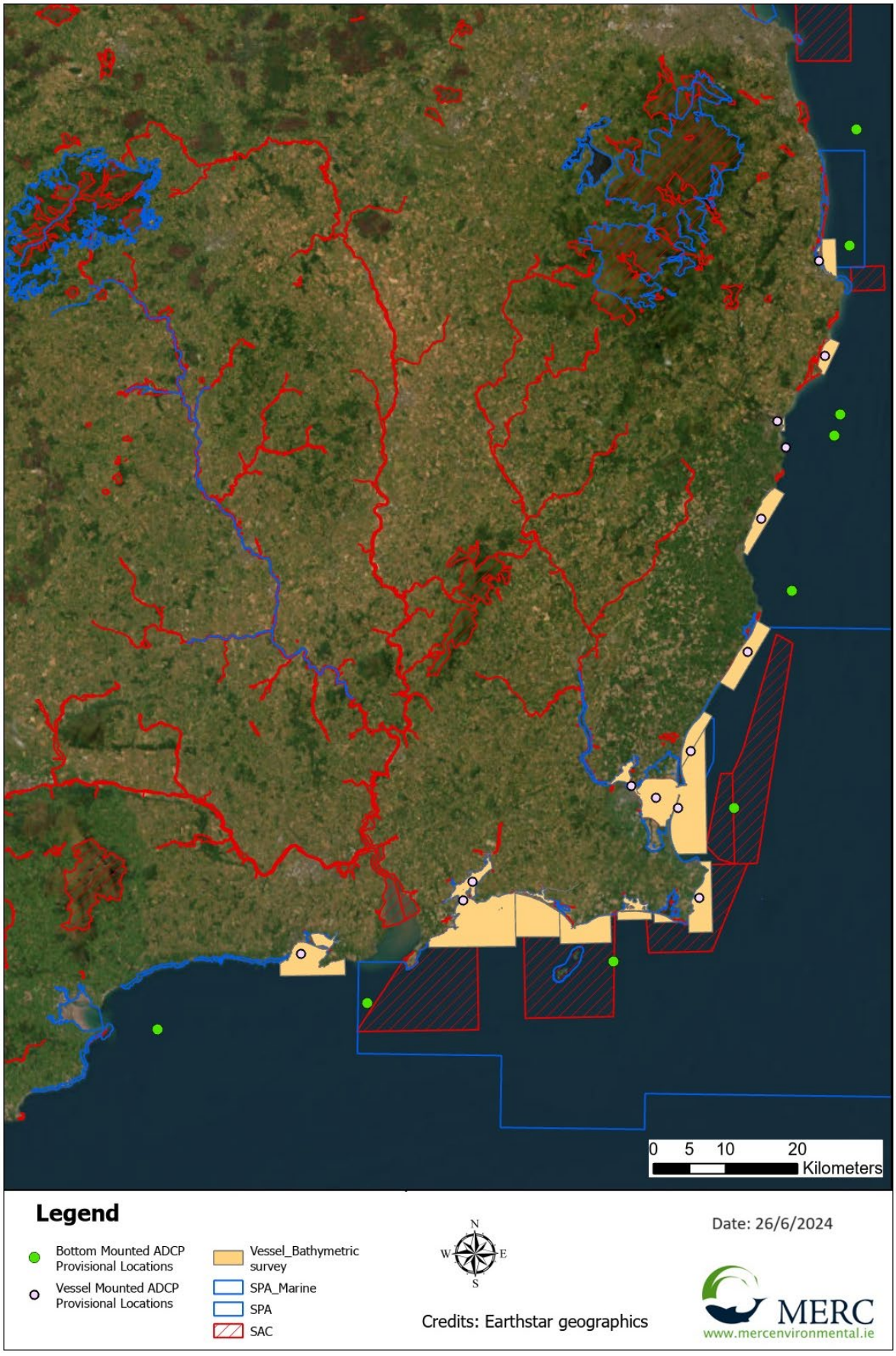

Fig. 1. Overview of proposed survey area relative to adjacent European sites.

2. Statement of authority

This report was prepared by MERC Consultants. MERC are a specialist marine ecological survey and consultancy firm. Core staff have more than 60 years of combined experience and specialist knowledge in relation to Irish aquatic habitats and species in addition to the assessment and management of conservation interests. MERC were responsible for preparing the NPWS national monitoring of marine Annex I habitats for compliance under Article 17 of the EU Habitats Directive in the period 2015-2019. In this context MERC were responsible for the assessment and reporting of marine Annex I habitats in Ireland and were the authors of all Article 17 reports and overarching site monitoring reports. MERC are currently engaged in conducting surveys and preparing the relevant reports for the current (2022-2025) monitoring cycle.

In addition to their scientific expertise MERC have an in-depth knowledge of Irish and European Environmental legislation and policy. In 2011 MERC prepared the text describing Activities Requiring Consent (ARCs) for inclusion in a handbook detailing the regulatory framework for all developments within designated sites in Ireland on behalf of the National Parks and Wildlife Service. They have also produced numerous Conservation Management Plans for the same department. To-date MERC have conducted in excess of 200 ecological reports in support of Appropriate Assessment under Article 6(3) of the EU Habitats Directive.

3. Methods

This document updates the August 2024 NIS to reflect MARA's Screening and Determination Report (Oct 2025). It addresses all issues listed in Tables 1–3 of that report — including site coverage, impact pathways, and in-combination assessment. It also sets out mitigation measures and revised conclusions to demonstrate that the proposed project will not lead to adverse effects on the integrity of any European site.

3.1. Guidelines and legislation

This report has been prepared, *inter alia*, with reference to the following European Directives, national legislation and guidance on the appropriate assessment of projects and plans with regard to the implementation of the provisions of Article 6(3) and (4) of the EU Habitats Directive 92/43/EEC.

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna. Official Journal of the European Communities.
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version).
- European Communities (Birds and Natural Habitats) Regulations 2011. SI No. 477 of 2011.
- Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission 2019/C33/01. Office for Official Publications of the European Communities, Luxembourg.
- Assessment of plans and projects in relation to Natura 2000 sites-Methodological Guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC 2021/C 437/01-Publication office of the EU (europa.eu).
- Appropriate Assessment Screening for Development Management. OPR Practice Note PN01. Office of the Planning Regulator. March 2021.
- Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters. Department of Arts, Heritage and the Gaeltacht, 2014.

- JNCC. 2023. JNCC guidance for the use of Passive Acoustic Monitoring in UK waters for minimising the risk of injury to marine mammals from offshore activities. JNCC, Peterborough.

4. Screening conclusion

Following MARAs Screening for Appropriate Assessment (October 2025), the European sites listed in Table 1 were considered for Appropriate Assessment. The qualifying interests which were screened in are marked in bold.

Table 1: Relevant European sites, their qualifying interests and site-specific conservation objectives. Those Qualifying Interests marked in bold have been screened in for appropriate assessment.

European site & site code	Distance from proposed MUL area (km)	List of Qualifying Interests	Connections (Source-pathway receptor)	European Site Screened in	Site-specific conservation objectives
SACs					
Tramore Dunes and Backstrand SAC [000671]	Within MUL Area	1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows (*Glauco Puccinellietalia maritimae*) 1410 Mediterranean salt meadows (*Juncetalia maritimi*) 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 1220 Perennial vegetation of stony banks 2110 Embryonic shifting dunes 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) *	No	No	NPWS (2013) Conservation Objectives: Bannow Bay SAC 000697 Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Hook Head SAC [000764]	Within MUL Area	**1349 Common Bottlenose Dolphin *(Tursiops truncatus)*** **1351 Harbour Porpoise *(Phocoena phocoena)***	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2025) Conservation Objectives: Hook Head SAC 000764. Version 2.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		1160 Large shallow inlets and bays 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts	No		

Bannow Bay SAC [000697]	Within MUL Area	1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows (*Glauco Puccinellietalia maritimae*) 1410 Mediterranean salt meadows (*Juncetalia maritimi*) 1420 Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*) 1220 Perennial vegetation of stony banks 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) *	No	No	NPWS (2012) Conservation Objectives: Bannow Bay SAC 000697. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Ballyteige Burrow SAC [000696]	Within MUL Area	1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows (*Glauco Puccinellietalia maritimae*) 1410 Mediterranean salt meadows (*Juncetalia maritimi*) 1420 Mediterranean and thermo-Atlantic halophilous scrubs (*Sarcocornetea fruticosi*) 1150 Coastal lagoons* 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) * 2150 Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) * 2190 Humid dune slacks	No	No	NPWS (2012) Conservation Objectives: Ballyteige Burrow SAC 000696. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Saltee Islands SAC [000707]	Within MUL Area	**1364 Grey Seal *(Halichoerus grypus*)**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2011) Conservation Objectives: Saltee Islands SAC 000707. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		1140 Mudflats and sandflats not covered by seawater at low tide 1160 Large shallow inlets and bays 1170 Reefs	No		

		1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 8330 Submerged or partially submerged sea caves			
Tacumshin Lake SAC [000709]	Within MUL Area	1150 Coastal lagoons* 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes	No	No	NPWS (2018) Conservation Objectives: Tacumshin Lake SAC 000709. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Carnsore Point SAC [002269]	Within MUL Area	**1351 Harbour Porpoise *(Phocoena phocoena)***	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2024) Conservation Objectives: Carnsore Point SAC 002269. Version 2.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		1140 Mudflats and sandflats not covered by seawater at low tide 1170 Reefs	No		

Lady's Island Lake SAC [000704]	<5km	1150 Coastal lagoons* 1170 Reefs 1220 Perennial vegetation of stony banks	No	No	NPWS (2019) Conservation Objectives: Lady's Island Lake SAC 000704. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Slaney River Valley SAC [000781]	Within MUL Area	**1365 Harbour Seal *(Phoca vitulina)***	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2011) Conservation Objectives: Slaney River Valley SAC 000781. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

		1095 Sea Lamprey *(Petromyzon marinus)* 1096 Brook Lamprey *(Lampetra planeri)* 1099 River Lamprey *(Lampetra fluviatilis)* 1103 Twaite Shad *(Alosa fallax fallax)* 1106 Salmon *(Salmo salar)* 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1330 Atlantic salt meadows (*GlaucoPuccinellietalia maritimae*) 1355 Otter *(Lutra lutra)* 1410 Mediterranean salt meadows (*Juncetalia maritimi*) 3260 Water courses of plain to montane levels with *the Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation 1029 Freshwater Pearl Mussel *(Margaritifera margaritifera)* 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) *	No		

Raven Point Nature Reserve SAC [000710]	Within MUL Area	1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1330 Atlantic salt meadows (*GlaucoPuccinellietalia maritimae*) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) * 2170 Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) 2190 Humid dune slacks	No	No	NPWS (2011) Conservation Objectives: Raven Point Nature Reserve SAC 000710. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Long Bank SAC [002162]	Within MUL Area	1110 Sandbanks which are slightly covered by sea water all the time	No	No	NPWS (2013) Conservation Objectives: Long Bank SAC 002162. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Blackwater Bank SAC [002953]	Within MUL Area	**1351 *Phocoena phocoena* (Harbour Porpoise)**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2024) Conservation Objectives: Blackwater Bank SAC 002953. Version 3.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		1110 Sandbanks which are slightly covered by sea water all the time	No		

Kilmuckridge-Tinnaberna Sandhills SAC [001741]	Within MUL Area	Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	No	No	NPWS (2014) Conservation Objectives: Kilmuckridge-Tinnaberna Sandhills SAC 001741. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Cahore Polders and Dunes SAC [000700]	Within MUL Area	Annual vegetation of drift lines [1210] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190]	No	No	NPWS (2016) Conservation Objectives: Cahore Polders and Dunes SAC 000700. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Kilpatrick Sandhills SAC [001742]	<5km	Annual vegetation of drift lines [1210] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150]	No	No	NPWS (2017) Conservation Objectives: Kilpatrick Sandhills SAC 001742. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Buckroney-Brittas Dunes and Fen SAC [000729]	<5km	Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Atlantic decalcified fixed dunes (*Calluno-Ulicetea*) [2150] Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*) [2170] Humid dune slacks [2190] Alkaline fens [7230]	No	No	NPWS (2017) Conservation Objectives: Buckroney-Brittas Dunes and Fen SAC 000729. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Magherabeg Dunes SAC [001766]	<5km	Annual vegetation of drift lines [1210] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Petrifying springs with tufa formation (*Cratoneurion*) [7220]	No	No	NPWS (2017) Conservation Objectives: Magherabeg Dunes SAC 001766. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Wicklow Reef SAC [002274]	<5km	Reefs [1170]	No	No	NPWS (2013) Conservation Objectives: Wicklow Reef SAC 002274. Version 1.0. National Parks and Wildlife Service, Department of Arts,

					Heritage and the Gaeltacht.
The Murrough Wetlands SAC [002249]	Within MUL Area	Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] Calcareous fens *with Cladium mariscus* and species of the *Caricion davallianae* [7210] Alkaline fens [7230]	No	No	NPWS (2021) Conservation Objectives: The Murrough Wetlands SAC 002249. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Helvick Head SAC [000665]	5-10	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	No	No	NPWS (2016) Conservation Objectives: Helvic Head SAC 000665. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Bray Head SAC [000714]	5-10	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	No	No	NPWS (2017) Conservation Objectives: Bray Head SAC 000714. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Rockabill to Dalkey Island SAC [003000]	5-10	***Phocoena phocoena* (Harbour Porpoise) [1351]**	Yes – possible disturbance and	Yes	NPWS (2013) Conservation Objectives:
			displacement from underwater noise from bathymetry survey activities		Rockabill to Dalkey Island SAC 003000. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		Reefs [1170]	No		
Lambay Island SAC [000204]	25-50	***Phocoena phocoena* (Harbour Porpoise) [1351]** ***Halichoerus grypus* (Grey Seal) [1364]** ***Phoca vitulina* (Harbour Seal) [1365]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2024) Conservation Objectives. Lambay Island SAC 000204. Version 2.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	No		
Codling Fault Zone SAC [003015]	25-50	***Phocoena phocoena* (Harbour Porpoise) [1351]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2025) Conservation Objectives. Codling Fault Zone SAC 003015. Version 2.0. National Parks and Wildlife Service,

		Submarine structures made by leaking gases [1180]	No		Department of Arts, Heritage and the Gaeltacht.

SPAs					
Mid-Waterford Coast SPA [004193]	<5km	**Cormorant (*Phalacrocorax carbo*) [A017]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	No	NPWS (2024) Conservation Objectives. Mid-Waterford Coast SPA 004193. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		Peregrine (*Falco peregrinus*) [A103] Herring Gull (*Larus argentatus*) [A184] Chough (*Pyrrhocorax pyrrhocorax*) [A346]	No		
Tramore Back Strand SPA [004027]	Within MUL Area	**Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]** **Golden Plover (*Pluvialis apricaria*) [A140]** **Grey Plover (*Pluvialis squatarola*) [A141]** **Lapwing (*Vanellus vanellus*) [A142]** **Dunlin (*Calidris alpina*) [A149]** **Black-tailed Godwit (*Limosa limosa*) [A156]** **Bar-tailed Godwit *(Limosa lapponica*) [A157]** **Curlew (*Numenius arquata*) [A160]** **Wetland and Waterbirds [A999]**	Yes - possible visual and above water noise disturbance and displacement from survey vessel activity	Yes	NPWS (2013) Conservation Objectives. Tramore Back Strand SPA 004027. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Seas off Wexford SPA [004237]	Within MUL Area	**Red-throated Diver (*Gavia stellata*) [A001]** **Fulmar (*Fulmarus glacialis*) [A009]** **Cormorant (*Phalacrocorax carbo*) [A017]** **Shag (*Phalacrocorax aristotelis*) [A018]** **Manx Shearwater (*Puffinus puffinus*) [A013]** **Gannet (*Morus bassanus*) [A016]** **Kittiwake (*Rissa tridactyla*) [A188]** **Guillemot (*Uria aalge*) [A199]** **Razorbill (*Alca torda*) [A200]** **Puffin (*Fratercula arctica*) [A204]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2024) Conservation Objectives. Seas off Wexford SPA 004237. Version 1.0. National Parks and Wildlife Service, Department of Arts,

		Common Scoter (*Melanitta nigra*) [A065] **Roseate Tern (*Sterna dougallii*) [A192]** **Common Tern (*Sterna hirundo*) [A193]** **Arctic Tern (*Sterna paradisaea*) [A194]** **Sandwich Tern (*Thalasseus sandvicensis*) [A863]** **Little Tern (*Sternula albifrons*) [A885]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities. Possible visual and above water noise disturbance and displacement from survey vessel activity		Heritage and the Gaeltacht.
		Mediterranean Gull (*Larus melanocephalus*) [A176] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184]	No		
Bannow Bay SPA [004033]	Within MUL Area	**Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]** **Shelduck (*Tadorna tadorna*) [A048]** **Pintail (*Anas acuta*) [A054]** **Oystercatcher (*Haematopus ostralegus*) [A130]** **Golden Plover (*Pluvialis apricaria*) [A140]** **Grey Plover (*Pluvialis squatarola*) [A141]** **Lapwing (*Vanellus vanellus*) [A142]** **Knot (*Calidris canutus*) [A143]** **Dunlin (*Calidris alpina*) [A149]** **Black-tailed Godwit (*Limosa limosa*) [A156]** **Bar-tailed Godwit (*Limosa lapponica*) [A157]** **Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162]**	Yes - possible visual and above water noise disturbance and displacement from survey vessel activity	Yes	NPWS (2012) Conservation Objectives. Seas off Wexford SPA 004237. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

		Wetland and Waterbirds [A999]			
Keeragh Islands SPA [004118]	Within MUL Area	**Cormorant (*Phalacrocorax carbo*) [A017]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2025) Conservation Objectives. Keeragh Islands SPA 004118. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Ballyteige Burrow SPA [004020]	Within MUL Area	**Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]** **Shelduck (*Tadorna tadorna*) [A048]** **Golden Plover (*Pluvialis apricaria*) [A140]** **Grey Plover (*Pluvialis squatarola*) [A141]** **Lapwing (*Vanellus vanellus*) [A142]** **Black-tailed Godwit (*Limosa limosa*) [A156]** **Bar-tailed Godwit (*Limosa lapponica*) [A157]** **Wetland and Waterbirds [A999]**	Yes - possible visual and above water noise disturbance and displacement from survey vessel activity	Yes	NPWS (2014) Conservation Objectives. Ballyteige Burrow SPA 004020. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Saltee Islands SPA [004002]	<5km	**Fulmar (*Fulmarus glacialis*) [A009]** **Gannet (*Morus bassanus*) [A016]** **Cormorant (*Phalacrocorax carbo*) [A017]** **Shag (*Phalacrocorax aristotelis*) [A018]** **Kittiwake (*Rissa tridactyla*) [A188]** **Guillemot (*Uria aalge*) [A199]** **Razorbill (*Alca torda*) [A200]** **Puffin (*Fratercula arctica*) [A204]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2011) Conservation Objectives. Saltee Islands SPA 004002. Version 1.0. National Parks and Wildlife Service, Department of Arts,

		Lesser Black-backed Gull (*Larus fuscus*) [A183] Herring Gull (*Larus argentatus*) [A184]	No		Heritage and the Gaeltacht

Tacumshin Lake SPA [004092]	Within MUL Area	**Bewick's Swan (*Cygnus columbianus bewickii*) [A037]** **Whooper Swan (*Cygnus cygnus*) [A038]** **Teal (*Anas crecca*) [A052]** **Pintail (*Anas acuta*) [A054]** **Golden Plover (*Pluvialis apricaria*) [A140]** **Grey Plover (*Pluvialis squatarola*) [A141]** **Lapwing (*Vanellus vanellus*) [A142]** **Black-tailed Godwit (*Limosa limosa*) [A156]** **Wigeon (*Mareca penelope*) [A855]** **Shoveler (*Spatula clypeata*) [A857]**	Yes - possible visual and above water noise disturbance and displacement from survey vessel activity.	Yes	NPWS (2025) Conservation Objectives. Tacumshin Lake SPA 004092. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		Little Grebe (*Tachybaptus ruficollis*) [A004] **Tufted Duck (*Aythya fuligula*) [A061] Coot (*Fulica atra*) [A125]** **Gadwall (*Mareca strepera*) [A889]** **Wetland and Waterbirds [A999]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities. Possible visual and above water noise disturbance and displacement from survey vessel activity.		

Lady's Island Lake SPA [004009]	Within MUL Area	**Roseate Tern (*Sterna dougallii*) [A192]** **Common Tern (*Sterna hirundo*) [A193]** **Arctic Tern (*Sterna paradisaea*) [A194]** **Sandwich Tern (*Thalasseus sandvicensis*) [A863]** **Wetland and Waterbirds [A999]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities. Possible visual and above water noise.	Yes	NPWS (2025) Conservation Objectives. Lady's Island Lake SPA 004009. Version 1.0. National Parks and Wildlife Service, Department of Arts,

			disturbance and displacement from survey vessel activity.		Heritage and the Gaeltacht.
		Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Gadwall (*Mareca strepera*) [A889]	No		

Wexford Harbour and Slobs SPA [004076]	Within MUL Area	**Grey Heron (*Ardea cinerea*) [A028]** **Bewick's Swan (*Cygnus columbianus bewickii*) [A037]** **Whooper Swan (*Cygnus cygnus*) [A038]** **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]** **Shelduck (*Tadorna tadorna*) [A048]** **Teal (*Anas crecca*) [A052]** **Mallard (*Anas platyrhynchos*) [A053]** **Pintail (*Anas acuta*) [A054]** **Hen Harrier (*Circus cyaneus*) [A082]** **Oystercatcher (*Haematopus ostralegus*) [A130]** **Golden Plover (*Pluvialis apricaria*) [A140]** **Grey Plover (*Pluvialis squatarola*) [A141]** **Lapwing (*Vanellus vanellus*) [A142] 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]** **Black-headed Gull (*Chroicocephalus ridibundus*) [A179]** **Lesser Black-backed Gull (*Larus fuscus*) [A183]** **Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]** **Wigeon (*Mareca penelope*) [A855]**	Yes - possible visual and above water noise disturbance and displacement from survey vessel activity.	Yes	NPWS (2012) Conservation Objectives. Wexford Harbour and Slobs SPA 004076. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

		Little Grebe (*Tachybaptus ruficollis*) [A004] **Great Crested Grebe (*Podiceps cristatus*) [A005]** **Cormorant (*Phalacrocorax carbo*) [A017]** **Scaup (*Aythya marila*) [A062]** **Goldeneye (*Bucephala clangula*) [A067]** **Red-breasted Merganser (*Mergus serrator*) [A069]** **Coot (*Fulica atra*) [A125]** **Little Tern (*Sternula albifrons*) [A885]** **Wetland and Waterbirds [A999]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities. Possible visual and above water noise disturbance and displacement from survey vessel activity.		
The Raven SPA [004019]	Within MUL Area	**Grey Plover (*Pluvialis squatarola*) [A141]** **Sanderling (*Calidris alba*) [A144]** **Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395]**	Yes - possible visual and above water noise disturbance and displacement from survey vessel activity.	Yes	NPWS (2012) Conservation Objectives. The Raven SPA 004019. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		Red-throated Diver (*Gavia stellata*) [A001] **Cormorant (*Phalacrocorax carbo*) [A017]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities.		

		Common Scoter (*Melanitta nigra*) [A065] **Wetland and Waterbirds [A999]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities. Possible visual and above water noise disturbance and displacement from survey vessel activity.		
Cahore Marshes SPA [004143]	<5km	Golden Plover (*Pluvialis apricaria*) [A140] Lapwing (*Vanellus vanellus*) [A142] Greenland White-fronted Goose (*Anser albifrons flavirostris*) [A395] Wigeon (*Mareca penelope*) [A855] Wetland and Waterbirds [A999]	No	No	NPWS (2025) Conservation Objectives. Cahore Marshes SPA 004143. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
Wicklow Head SPA [004127]	<5km	**Kittiwake (*Rissa tridactyla*) [A188]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities.	Yes	NPWS (2024) Conservation Objectives. Wicklow Head SPA 004127. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

The Murrough SPA [004186]	Within MUL Area	**Greylag Goose (*Anser anser*) [A043]** **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]** **Teal (*Anas crecca*) [A052]** **Black-headed Gull (*Chroicocephalus ridibundus*) [A179]** **Herring Gull (*Larus argentatus*) [A184]** **Wigeon (*Mareca penelope*) [A855]**	Yes - possible visual and above water noise disturbance and displacement from survey vessel activity.	Yes	NPWS (2024) Conservation Objectives. The Murrough SPA 004186. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		Red-throated Diver (*Gavia stellata*) [A001]	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities.		
		Little Tern (*Sternula albifrons*) [A885] Wetland and Waterbirds [A999]	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities. Possible visual and above water noise disturbance and displacement from survey vessel activity.		

Helvick Head to Ballyquin SPA [004192]	5-10	**Cormorant (*Phalacrocorax carbo*) [A017]** **Kittiwake (*Rissa tridactyla*) [A188]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities.	Yes	NPWS (2025) Conservation Objectives. Helvick Head to Ballyquin SPA 004192 Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
		Herring Gull (*Larus argentatus*) [A184] Peregrine (*Falco peregrinus*) [A103] Chough (*Pyrrhocorax pyrrhocorax*) [A346]	No		
Dungarvan Harbour SPA [004032]	5-10	Great Crested Grebe (*Podiceps cristatus*) [A005] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Red-breasted Merganser (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] 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] Wetland and Waterbirds [A999]	No	No	NPWS (2012) Conservation Objectives. Dungarvan Harbour SPA 004032. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

North-west Irish Sea SPA [004236]	10-25	Great Crested Grebe (*Podiceps cristatus*) [A005] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Red-breasted Merganser (*Mergus serrator*) [A069] Oystercatcher (*Haematopus ostralegus*) [A130] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] 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] Wetland and Waterbirds [A999]	No	No	NPWS (2023) Conservation Objectives. North-west Irish Sea SPA 004236. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Ballymacoda Bay SPA [004023]	25-50	Lesser Black-backed Gull (*Larus fuscus*) [A183] Teal (*Anas crecca*) [A052] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] 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] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Wigeon (*Mareca penelope*) [A855] Wetland and Waterbirds [A999]	No	No	NPWS (2015) Conservation Objectives. Ballymacoda Bay SPA 004023. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
Ballycotton Bay SPA [004022]	25-50	Lesser Black-backed Gull (*Larus fuscus*) [A183] Teal (*Anas crecca*) [A052] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Turnstone (*Arenaria interpres*) [A169] Common Gull (*Larus canus*) [A182] Wetland and Waterbirds [A999]	No	No	NPWS (2014) Conservation Objectives. Ballycotton Bay SPA 004022. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht

Ireland's Eye SPA [004117]	25-50	**Kittiwake (*Rissa tridactyla*) [A188]** **Guillemot (*Uria aalge*) [A199]** **Razorbill (*Alca torda*) [A200]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2024) Conservation Objectives. Ireland's Eye SPA 004117. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
		Cormorant (*Phalacrocorax carbo*) [A017] Herring Gull (*Larus argentatus*) [A184]	No		
Lambay Island SPA [004069]	25-50	**Fulmar (*Fulmarus glacialis*) [A009]** **Kittiwake (*Rissa tridactyla*) [A188]** **Puffin (*Fratercula arctica*) [A204]** **Razorbill (*Alca torda*) [A200]**	Yes – possible disturbance and displacement from underwater noise from bathymetry survey activities	Yes	NPWS (2024) Conservation Objectives. Lambay Island SPA 004069. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht
		Guillemot (*Uria aalge*) [A199] Lesser Black-backed Gull (*Larus fuscus*) [A183] Cormorant (*Phalacrocorax carbo*) [A017] Shag (*Phalacrocorax aristotelis*) [A018] Greylag Goose (*Anser anser*) [A043] Herring Gull (*Larus argentatus*) [A184]	No		

5. Assessment of Likely Significant Effects

This section assesses the European sites and qualifying interests screened in by MARA (October 2025) to determine whether the proposed project, alone or in combination, could affect their integrity in view of site conservation objectives.

The screening determination (Table 1) identified the following as having the potential for likely significant effects.

- Disturbance and displacement from underwater noise, resulting from the operation of a multibeam echosounder (MBES), and vessel presence, with the potential for short term, temporary disturbance on Marine Mammals and diving birds.
- Visual and above water noise disturbance and from survey vessel to be at a level and duration that could cause short term, temporary disturbance of wintering waterbirds within close proximity to the intertidal foraging habitats for wintering waterbirds species.

5.1. Marine Mammals

5.1.1. Bottlenose Dolphin

Bottlenose Dolphin is a QI for Hook Head SAC (Table 1). The conservation objectives for bottlenose dolphin in Hook Head SAC.

Table 2. COs Bottlenose Dolphin.

Conservation objective: To maintain the favourable conservation condition of Common bottlenose dolphin in Hook Head SAC, which is defined by the following list of attributes and targets:	
Target	**Target**
Access to suitable habitat	Species range within the site should not be restricted by artificial barriers to site use
Disturbance	Human activities should occur at levels that do not adversely affect the bottlenose dolphin population at the site

Target 1: Access to suitable habitat

This target may be considered relevant to proposed activities or operations that will result in the exclusion of bottlenose dolphin from part of its range within the site or will prevent access for the species to suitable habitat within the site. Underwater noise resulting from the proposed survey may have the potential to cause some behaviour changes in bottlenose dolphin should they be within the Zone of Influence (ZoI) of the survey during operations. JNCC (2017) considers that MBES in shallower waters (<200m), such as proposed in this project, do not require mitigation. It is believed that MBES which emit sound at higher frequencies, and which also attenuate more quickly than the lower frequencies used in deeper waters, are unlikely to lead to impacts. However, NPWS (2014) recommend mitigation for such surveys in shallow water.

Target 2: Disturbance

Proposed activities or operations should not introduce man-made energy (e.g. MBES surveys) at levels that could result in a significant negative impact on individuals and/or the population of bottlenose dolphin within the site. This target also relates to proposed activities or operations that may result in the deterioration of key resources (e.g., water quality, feeding, etc.) upon which bottlenose dolphins depend. As such the generation of underwater noise, as discussed above, has been considered.

The proposed project does not have the potential to impact key resources for this species. Disturbance related to vessel traffic is also unlikely as the species would be habituated to small boat traffic in this area.

With due regard to the precautionary principle, mitigation (section 6.1) is recommended to ensure the proposed surveys do not give rise to significant effects on any European Site designated for bottlenose dolphins.

5.1.2. Harbour Porpoise

Underwater noise resulting from the proposed survey may have the potential to cause some behaviour changes in Harbour porpoise should they be within the ZoI of the survey during operations. Harbour porpoise is a QI for Rockabill to Dalkey Island SAC, Lambay Island SAC, Codling fault zone SAC, Hook Head SAC, Carnsore Point SAC and Blackwater Bank SAC with which there is a spatial overlap with the proposed project. Underwater-noise generating activities will not be focused within Blackwater Bank SAC; however, transits and line-runs may occur within/near the SAC and are therefore mitigated as per Section 6.1 to ensure the proposed surveys do not give rise to significant effects on Harbour Porpoise at any European Site designated for Harbour porpoise the mitigation proposed in section 6.1 is recommended.

Table 3. COs for Harbour porpoise.

Conservation objective: To maintain the favourable conservation condition of Harbour porpoise in Rockabill to Dalkey Island SAC, Lambay Island SAC, Codling fault zone SAC, Hook Head SAC, Carnsore Point SAC and Blackwater Bank SAC which are defined by the following list of attributes and targets:	
Target	**Target**
Access to suitable habitat	Species range within the site should not be restricted by artificial barriers to site use
Disturbance	Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site

Target 1: Access to suitable habitat

This target may be considered relevant to proposed activities or operations that will result in the exclusion of Harbour porpoise from part of its range within the site or will prevent access for the species to suitable habitat within the site. Underwater noise resulting from the proposed survey may have the potential to cause some behaviour changes in Harbour porpoise should they be within the ZoI of the survey during operations. JNCC (2017) considers that MBES in shallower waters (<200m), such as proposed in this project, do not require mitigation. It is believed that MBES which emit sound at higher frequencies, and which also attenuate more quickly than the lower frequencies used in deeper waters, are unlikely to lead to impacts. However, NPWS (2014) recommend mitigation for such surveys in shallow water.

Target 2: Disturbance

Proposed activities or operations should not introduce man-made energy (e.g. MBES surveys) at levels that could result in a significant negative impact on individuals and/or the population of Harbour porpoise within the site. This target also relates to proposed activities or operations that may result in the deterioration of key resources (e.g., water quality, feeding, etc.) upon which Harbour porpoise depends. As such the generation of underwater noise, as discussed above, has been considered. The proposed project does not have the potential to impact key resources for this species. Disturbance

related to vessel traffic is also unlikely as the species would be habituated to small boat traffic in this area.

With due regard to the precautionary principle, mitigation (section 6.1) is recommended to ensure the proposed surveys do not give rise to significant effects on any European Site designated for Harbour porpoise.

5.1.3. Grey Seal and harbour seal

There is a spatial overlap between the proposed survey area and Saltee Islands SAC which is designated for grey seal. There is a spatial overlap between the proposed survey area and Slaney River Valley SAC which is designated for harbour seal. Additional SACs with the potential for noise related effects are Saltee Islands SAC and Lambay Island SAC,

Table 4. COs for grey seal and harbour seal.

Conservation objective: To maintain the favourable conservation condition of grey seal and/or harbour seal within Saltee Islands SAC, Slaney River Valley SAC, and Lambay Island SAC.	
Attribute	**Target**
Access to suitable habitat:	Species range within the site should not be restricted by artificial barriers to site use
Breeding behaviour:	The breeding sites should be maintained in a natural condition
Moulting behaviour:	The moult haul-out sites should be maintained in a natural condition
Resting behaviour:	The resting haul-out sites should be maintained in a natural condition
Population composition:	The population occurring within this site should contain adult, juvenile and pup cohorts annually
Disturbance:	Human activities should occur at levels that do not adversely affect the grey seal population at the site

Target 1: Access to suitable habitat

This target may be considered relevant to proposed activities or operations that will result in the permanent exclusion of grey seal or harbour seal from part of their range within the site or will permanently prevent access for the species to suitable habitat therein. It does not refer to short-term or temporary restriction of access or range. No artificial barriers will be created that could impact either species.

Target 2: Breeding behaviour

This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) breeding behaviour by grey seal or harbour seal within their respective sites and/or aquatic/terrestrial/intertidal habitat used during the annual breeding season. Operations or activities that cause displacement of individuals from a breeding site or alteration of natural breeding behaviour, and that may result in higher mortality or reduced reproductive success, would be regarded as significant and should therefore be avoided. It is considered that due to the distance of breeding sites within Saltee Islands SAC Impacts on breeding behaviour of grey seal are unlikely. However, within Slaney River Valley SAC LSEs on grey seal are possible.

Target 3: Moulting behaviour

This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) moulting behaviour by grey or harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used during the annual moult. Operations or activities that cause

displacement of individuals from a moult haul-out site or alteration of natural moulting behaviour to an extent that may ultimately interfere with key ecological functions would be regarded as significant and should therefore be avoided. It is considered that due to the distance of moulting sites within Saltee Islands SAC Impacts on moulting behaviour of grey seal are unlikely. However, within Slaney River Valley SAC LSEs on harbour seal is possible.

Target 4: Resting behaviour
This target is relevant to proposed activities or operations that will result in significant interference with or disturbance of (a) resting behaviour by grey or harbour seal within the site and/or (b) aquatic/terrestrial/intertidal habitat used for resting. Operations or activities that cause displacement of individuals from a resting haul-out site to an extent that may ultimately interfere with key ecological functions would be regarded as significant and should therefore be avoided. It is considered that due to the distance of resting sites within Saltee Islands SAC Impacts on resting behaviour of grey seal are unlikely. However, within Slaney River Valley SAC LSEs on harbour seal is possible.

Target 5: Population composition
Resting haul-out sites and the composition of haul-out groups may be different to those normally observed during breeding or moulting. Disturbance at a specific location may have the effect of causing cohort-specific disturbance within the population. Population composition, whether in aquatic or terrestrial/intertidal habitats within the entire site or at individual locations, is likely to vary naturally within and between years. For the effective maintenance of the population, the above cohorts should be represented in the population occurring naturally within the site each year and any disturbance likely to cause such a cohort-specific effect should be carefully considered. It is considered that due to the distance of breeding sites and haul-out sites within Saltee Islands SAC Impacts on population composition of grey seal are unlikely. However, within Slaney River Valley SAC LSEs on harbour seal are possible.

Target 6: Disturbance
Proposed activities or operations should not introduce man-made energy (e.g., aerial, or underwater noise, light or thermal energy) at levels that could result in a significant negative impact on individuals and/or the population of grey or harbour seal within the site. This refers to both the aquatic and terrestrial/intertidal habitats used by the species in addition to important natural behaviours during the species' annual cycle. This target also relates to proposed activities or operations that may result in the deterioration of key resources (e.g., water quality, feeding, etc) upon which grey seals depend. It is considered that, Disturbance related impacts grey seal are unlikely due to the distance of disturbing relating activities that may impact grey seal at Saltee Islands SAC. However, for the same reason disturbance related activities are considered possible for the harbour seal population at Slaney River Valley SAC.

It is recommended that mitigation (section 6.2) is implemented to ensure the proposed surveys do not give rise to significant effects on any European Site designated for Harbour Seal. With due regard to the precautionary principle, mitigation (section 6.2) is also recommended to ensure the proposed surveys do not give rise to significant effects on any European Site designated for grey seal.

5.2. Wintering waterbirds

There is a spatial overlap between the proposed bathymetric surveys and/or the SPAs that are within 5km of the proposed project site, for the following SPAs designated for wintering waterbirds.

- Tramore Back Strand SPA

- Bannow Bay SPA
- Ballyteigue Burrow SPA
- Tacumshin Lake SPA
- Wexford Harbour and Slobs SPA
- The Raven SPA
- The Murrough SPA
- Mid-Waterford Coast SPA

The conservation objectives for the SCIs screened in for wintering water birds at the following sites are listed in Table 5 below:

Table 5. COs for wintering waterbirds screened in.

Conservation objective: To maintain the favourable conservation condition of the SCIs for which Tramore Back Strand SPA, Bannow Bay SPA, Ballyteige Burrow SPA, Tacumshin Lake SPA, Wexford harbour and Slobs SPA, Raven SPA and Murrough SPA and Mid-Waterford Coast SPA which are defined by the following attributes and targets	
Attribute	**Target**
Population trend.	The long-term population trend should be stable of increasing
Distribution	There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation

Wintering waterbirds may be disturbed due to vessel presence close to their intertidal foraging areas during acoustic survey operations. This is more likely to occur near low tide when waders have followed the tide out to the low water mark, causing them to be displaced from their foraging area.

It is recommended that mitigation (section 6.3) is implemented to ensure the proposed surveys do not give rise to significant effects on any European Site designated for the SCIs for Tramore Back Strand Bannow Bay SPA, Ballyteige Burrow SPA, Tacumshin Lake SPA, Wexford harbour and Slobs SPA, Raven SPA and Murrough SPA

5.3. Seabirds

There is a spatial overlap between the proposed bathymetric surveys and/or the SPAs are within 5-10km of the proposed project site for the following SPAs designated for seabirds, of which some are diving seabirds. See table 6 below.

- Seas off Wexford SPA
- Kerragh Islands SPA
- Saltee Islands SPA
- Raven Point SPA
- Wicklow Head SPA
- The Murrough SPA
- Helvick Head SPA

Table 6. COs for seabirds screened in.

Conservation objective: To maintain the favourable conservation condition of the SCIs for which Seas off Wexford SPA, Kerragh Islands SPA, Saltee Islands SPA, Raven Point SPA, Wicklow Head SPA, The Murrough SPA, and Helvick Head SPA	
Attribute	**Target**
Red-throated diver (*Gavia stellata*), Common Scoter (*Melaniitta nigra*),	
Non-breeding population size	The long-term population trend should be stable of increasing
Spatial distribution	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population
Forage spatial distribution, extent and abundance	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target
Disturbance across the site	The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution
Barriers to connectivity	The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA
Fulmar (*Fulmarus glacialis*), Shag (*Phalacrocorax aristotelis*), Manx Shearwater (*Puffinus puffinus*), Gannet (*Morus bassanus*), Kittiwake (*Rissa tridactyla*), Guillemot (*Uria aalge*), Razorbill (*Alca torda*), Puffin (*Fratercula arctica*), Roseate Tern (*Sterna dougallii*), Common Tern (*Sterna hirundo*), Arctic Tern (*Sterna paradisaea*), Sandwich Tern (*Thalasseus sandvicensis*) [A863] and Little Tern (*Sternula albifrons*)	
Breeding population size	The long-term population trend should be stable of increasing
Spatial distribution	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population
Forage spatial distribution, extent and abundance	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target
Disturbance across the site	The intensity, frequency, timing and duration of disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution
Barriers to connectivity	The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA
Cormorant (*Phalacrocorax carbo*),	
Population size	The long-term population trend should be stable of increasing
Spatial distribution	Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population
Forage spatial distribution, extent and abundance	Sufficient number of locations, area of suitable habitat and available forage biomass to support the population target
Disturbance across the site	The intensity, frequency, timing and duration of

	disturbance occurs at levels that do not significantly impact the achievement of targets for population size and spatial distribution
Barriers to connectivity	The number, location, shape and area of barriers do not significantly impact the site population's access to the SPA or other ecologically important sites outside the SPA

5.4. Potential for in-combination effects

MARA has developed a stepwise approach for identifying other plans and projects that may act in combination with a proposed maritime usage and potentially affect European sites. Using professional and scientific judgement, the cumulative-effects assessment for this project follows the same approach. The key steps are:

1. Defining the Cumulative Effects Spatial Scope (CESS)
2. Defining the Cumulative Effects Temporal Scope (CETS)
3. Impact identification
4. Pathway identification
5. Prediction of likely effects
6. Identification of plans or projects that could act in combination
7. Screening-stage cumulative-effects conclusion
8. Management of cumulative impacts (addressed within this Stage 2 AA process)

Cumulative-Effects Spatial and Temporal Scope

The CESS is defined as the spatial extent of the proposed Maritime Usage Licence (MUL 240026) area, together with the maximum acoustic propagation and potential behavioural-response range of the survey equipment. This range is derived from JNCC (2023) Guidance on Assessing the Significance of Noise Disturbance against Harbour Porpoise SAC Conservation Objectives.

The CETS is defined as five years, corresponding to the proposed duration of the MUL and covering all survey activities and potential temporal overlap with other ongoing marine projects.

Identification of Other Plans and Projects

A search of relevant databases was undertaken to mirror MARA's stepwise approach, including (but not limited to):

- MARA MAC and MUL consent lists
- Foreshore licence database
- An Coimisiún Pleanála map viewer
- Department of Agriculture, Food and the Marine AQUAMIS system
- Waterford, Wexford and Wicklow County Council planning portals
- EPA licence and authorisation registers

All projects within the defined CESS and CETS were examined. Particular attention was given to those identified by (Table 7) spatial or temporal overlap with the proposed activities.

Table 7. Projects with Potential In-Combination Interactions.

Application Ref.	**Project Description**	**Distance from Proposed MUL Area (km)**	**Status**
MUL240023	Iarnród Éireann – marine survey activities	Overlap	Applied
MUL240036	Eirgrid – marine survey activities	Overlap	Determined
319864 (An Coimisiún Pleanála)	Arklow Bank Wind Park II – planning application	Overlap	Applied
FS007546	Codling Wind Park – marine survey activities	Overlap	Determined

Plans and Programmes Considered

The following strategic plans, which influence marine and coastal development or resource management in the region, were also reviewed:

- Climate Action Plan 2024
- South Coast Designated Maritime Area Plan 2024
- Waterford City & County Development Plan 2022–2028
- Wexford County Development Plan 2022–2028
- Wicklow County Development Plan 2022–2028
- Water Action Plan 2024
- Uisce Éireann Regional Water Resources Plan – South East
- Uisce Éireann Regional Water Resources Plan – Eastern and Midlands

Cumulative Assessment and AA Considerations

The above plans and projects have the potential for cumulative disturbance through overlapping vessel operations and short-term increases in acoustic output. However, each has proposed measures to mitigate adverse effects resulting from disturbance and/or the introduction of noise into the marine environment consistent with NPWS (2014) and JNCC (2023) guidance.

Where spatial or temporal overlap could occur, **coordination of survey timing** and adherence to **standard mitigation (soft-start, MMO/PAM protocols, vessel-speed and standoff controls)** will

ensure that cumulative exposure remains below behavioural-disturbance thresholds for marine mammals and waterbirds.

However, *potential* in-combination effects cannot be fully excluded in the absence of mitigation, Therefore, in line with the precautionary principle, the implementation of the mitigation measures detailed in 6.4 will prevent any adverse effect on the integrity of European sites, in view of their conservation objectives.

6. Mitigation measures

The following measures are proposed to ensure that no adverse effect on the integrity of any European site will occur. They are consistent with NPWS (2014) guidance, JNCC (2023), and MARA (2025) determination requirements.

6.1. Bottlenose dolphin and Harbour porpoise

A MMO will be appointed to oversee the following guidelines are adhered to.

The National Parks and Wildlife Service *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters* recommends 1000m radial distance for geophysical surveys including multibeam in water depths of <200m (NPWS 2014).

The measures outlined below are applicable to

(i) all seismic surveys (including the testing and full operational use of airguns, water guns, sparkers, boomers and vertical seismic profiling [VSP] or checkshot systems) in inshore and offshore Irish waters;

(ii) all multibeam, single beam, side-scan sonar and sub-bottom profiler (e.g., pinger or chirp system) surveys within bays, inlets or estuaries‡‡ and within 1,500m of the entrance of enclosed bays/inlets/estuaries.

(iii) or as advised by the relevant Regulatory Authority

<u>Multibeam, single beam, side-scan sonar surveys</u>

1. A qualified and experienced marine mammal observer (MMO) shall be appointed to monitor for marine mammals and to log all relevant events using standardised data forms.

2. Unless information specific to the location and/or plan/project is otherwise available to inform the mitigation process (e.g., specific sound propagation and/or attenuation data) and a distance modification has been agreed with the Regulatory Authority, acoustic surveying using the above equipment shall not commence if marine mammals are detected within a 500m radial distance of the sound source intended for use, i.e., within the Monitored Zone.

Pre-Start Monitoring

3. Sound-producing activities shall only commence in daylight hours where effective visual monitoring, as performed and determined by the MMO, has been achieved. Where effective visual monitoring, as determined by the MMO, is not possible the sound-producing activities shall be postponed until effective visual monitoring is possible.

4. An agreed and clear on-site communication signal must be used between the MMO and the Works Superintendent as to whether the relevant activity may or may not proceed, or resume following a break (see below). It shall only proceed on positive confirmation with the MMO.

5. In waters up to 200m deep, the MMO shall conduct pre-start-up constant effort monitoring at least 30 minutes before the sound-producing activity is due to commence. Sound-producing activity shall not commence until at least 30 minutes have elapsed with no marine mammals detected within the Monitored Zone by the MMO.

6. This prescribed Pre-Start Monitoring shall subsequently be followed by a Ramp-Up (Soft-Start) Procedure which should include continued monitoring by the MMO.

Ramp-Up Procedure

7. In commencing an acoustic survey operation using the above equipment, the following Ramp-up Procedure (i.e., "soft-start") must be used, including during any testing of acoustic sources, where the output peak sound pressure level from any source exceeds 170 dB re: 1µPa @1m:

(a) Where it is possible according to the operational parameters of the equipment concerned, the device's acoustic energy output shall commence from a lower energy start-up (i.e., a peak sound pressure level not exceeding 170 dB re: 1µPa @1m) and thereafter be allowed to gradually build up to the necessary maximum output over a period of 20 minutes.

(b) This controlled build-up of acoustic energy output shall occur in consistent stages to provide a steady and gradual increase over the ramp-up period.

(c) Where the acoustic output measures outlined in steps (a) and (b) are not possible according to the operational parameters of any such equipment, the device shall be switched "on" and "off" in a consistent sequential manner over a period of 20 minutes prior to commencement of the full necessary output.

8. In all cases where a Ramp-Up Procedure is employed the delay between the end of ramp-up and the necessary full output must be minimised to prevent unnecessary high-level sound introduction into the environment.

9. Once the Ramp-Up Procedure commences, there is no requirement to halt or discontinue the procedure at night-time, nor if weather or visibility conditions deteriorate nor if marine mammals occur within a 500m radial distance of the sound source, i.e., within the Monitored Zone.

Breaks in sound output

10. If there is a break in sound output for a period greater than 30 minutes (e.g., due to equipment failure, shut-down, survey line or station change) then all Pre-Start Monitoring and a subsequent Ramp-up Procedure (where appropriate following Pre-Start Monitoring) must be undertaken.

11. For higher output survey operations which have the potential to produce injurious levels of underwater sound as informed by the associated risk assessment, there is likely to be a regulatory requirement to adopt a shorter 5-10 minute break limit after which period all Pre-Start Monitoring and a subsequent Ramp-up Procedure (where appropriate following Pre-Start Monitoring) shall recommence as for start-up.

Reporting

12. Full reporting on MMO operations and mitigation undertaken must be provided to the Regulatory Authority.

Given that sections of the proposed surveys will be conducted adjacent to the shore, best practice is to ensure that no animals are entrapped between the survey and the shore, particularly in embayments where escape is difficult. Survey lines should be soft-started on the shoreward end of a line and move towards open water (i.e. inshore-offshore transects and not parallel to the shore) to allow any animals present ample opportunity to leave the area.

6.2. Grey seal and harbour seal

In line with the guidance to manage the risk to marine mammals (NPWS, 2014), the mitigation proposed in section 6.1 for Cetacean species are also proposed for grey and harbour seal. Furthermore, it is recommended that:

- Surveys do not take place within 100m of haul out or breeding sites for these species.

- Vessel speed near haul-outs should remain below 6 knots, and engines kept in neutral when holding station.

6.3. Birds

The screened-in SPAs support qualifying bird species that may experience short-term disturbance or displacement arising from vessel activity and/or underwater acoustic emissions associated with survey operations. Sensitivities primarily relate to wintering and roosting waterbird assemblages at inshore sites (Tramore Back Strand, Bannow Bay, Ballyteige Burrow, Wexford Harbour and Slobs, The Murrough, Tacumshin Lake and Mid-Waterford Coast SPA) and to breeding or foraging seabird and tern populations at the Seas off Wexford, Saltee Islands, and Lady's Island Lake.

Mitigation measures described below are designed to avoid or minimise disturbance to these species through appropriate survey timing, operational controls, and noise-reduction procedures.

To minimise the potential for underwater noise related disturbance or displacement on the diving seabirds associated Seas off Wexford SPA, Kerragh Island SPA, Saltee Islands SPA, The Raven SPA, Wicklow Head SPA, Irelands Eye SPA, Lambay Island SPA, The Murrough SPA and Helvick Head SPA, the mitigation detailed below is proposed.

- The project MMO will also have suitable ornithological expertise in the identification of diving seabirds.
- Where the MMO observes a significant cluster of actively fishing, diving birds in the survey pathway, within 500 m of the vessel and within a 500m buffer zone of an SPA, the survey route will be modified to aim to maintain a 500m buffer distance from the diving birds.

To avoid disturbance to foraging wintering waterbirds bathymetric surveys should not be carried out within the SPA areas where theses species are a qualifying interest, detailed in table 1, between the months of September to March.

Vessels should maintain steady speed and avoid abrupt manoeuvres within 1 km of shorelines.

6.4. In-Combination effects

To avoid the potential for in-combination effects the applicant will coordinate with other authorised licence holders carrying out any underwater noise inducing surveys activities within a 10 km radius of the proposed survey areas

6.5. Implementation Summary

The above measures collectively ensure that:

Underwater noise remains below behavioural-response thresholds for marine mammals that form a qualifying interest for any European site with the ZoI of the proposed project.

Disturbance to wintering birds and habitat integrity within any European site with the ZoI of the proposed project is prevented; and

Temporal and spatial coordination with other authorised licence holders eliminates in-combination acoustic effects with other projects.

When implemented in full, these measures will ensure that the proposed surveys will not adversely affect the integrity of any European Site, either alone or in combination with other plans or projects.

7. Transboundary effects

Transboundary effects relate to the likelihood of significant effects on a site which is part of the Natura 2000 network but lies outside our national boundaries.

UK sites are no longer part of the EU Natura 2000 network (OPR, 2021). However, the ZoI does not extend to UK-designated sites, and no hydrodynamic/acoustic pathway has been identified; therefore, no transboundary effects are expected. The ZoI of the proposed project has been estimated and all European sites with the potential for project related effects have been assessed, including *ex-situ* effects. This process and the subsequent assessment did not identify any potential for transboundary effects.

8. Residual effects

No residual effects of the proposed project have been identified or are considered possible.

9. Natura Impact Statement Conclusion

This assessment is based on complete, precise and definitive findings in the light of the best scientific knowledge. It objectively concludes that provided the mitigation measures described in this document are fully implemented, **no adverse effect on the integrity** of any European site will occur.

10. References

European Commission (2021). Methodological Guidance for AA (Articles 6(3) and (4)).

JNCC (2017). JNCC guidelines for minimising the risk of injury to marine mammals from geophysical surveys. Joint Nature Conservation Council Committee, Aberdeen, United Kingdom

MARA (2025). Appropriate Assessment Screening and Determination Report – MUL240026.

MERC (2024). Supporting Information for Screening for Appropriate Assessment Report. Uisce Éireann South East Coast Strategic Model.

NPWS (2014). Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters.

MERC Consultants
environmental and conservation services