MERC Consultants
environmental and conservation services

Natura Impact Statement

Uisce Éireann South East Coast Strategic Model

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1. Introduction

Uisce Éireann wish to conduct a strategic modelling study of water currents and bathymetry along the South East 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 SSISAA (MERC, 2024), this report represents a Natura Impact Statement (NIS) for the proposed project.

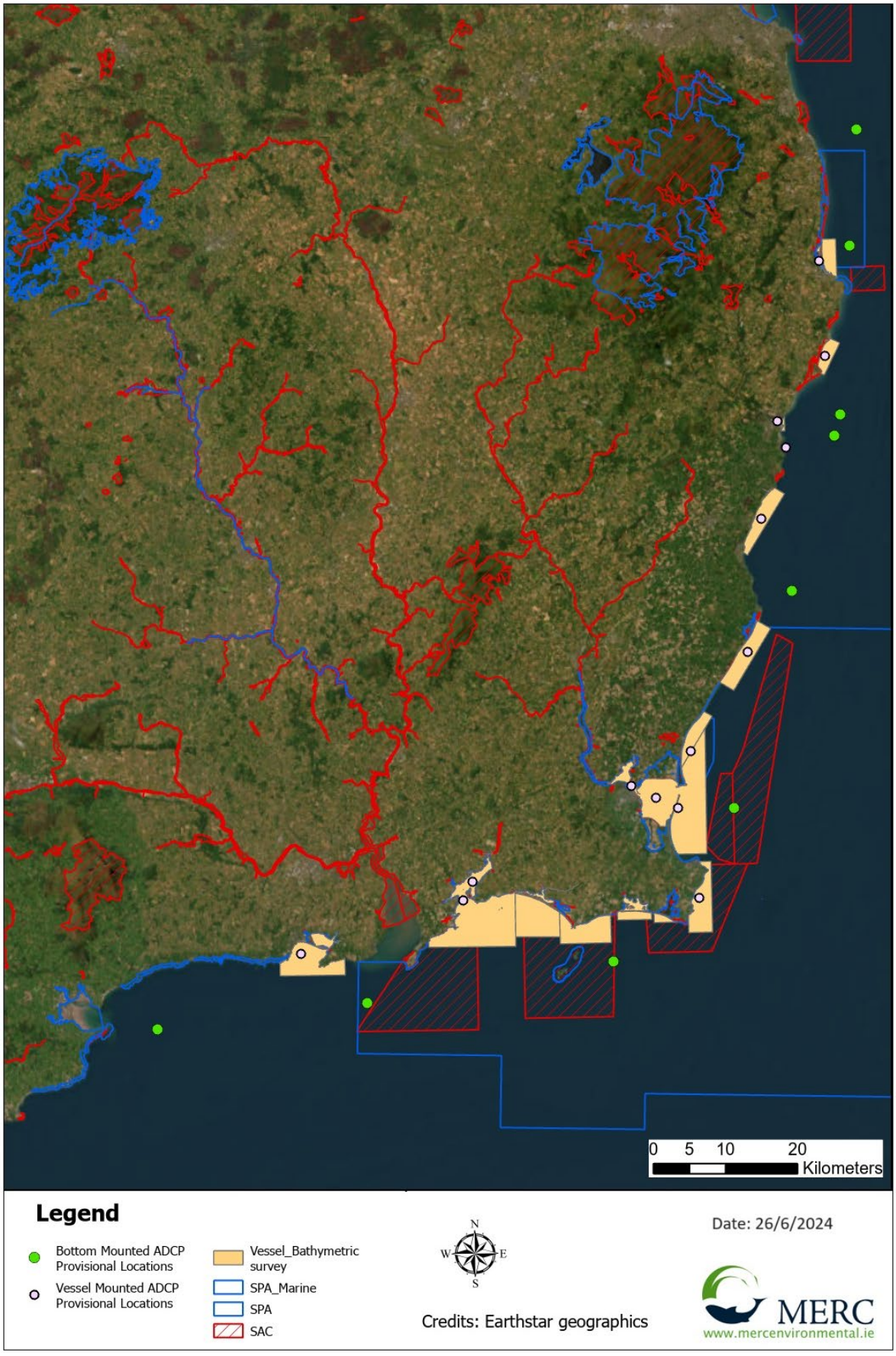

Fig. 1. Overview of proposed survey area relative to adjacent European sites.

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

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

The SISAA (MERC, 2024) concluded that it cannot be excluded on the basis of objective scientific information, following the preparation of the SISAA, that the proposed project, individually or in combination with other projects, may lead to Likely Significant Effects (LSEs) on a European Site.

The assessment concluded that, the proposed project may give rise to significant effects on the Conservation Objectives of the European sites listed below.

- Hook Head SAC
- Saltee Islands SAC
- Carnsore Point SAC
- Slaney River Valley SAC
- Tramore Back Strand SPA
- Bannow Bay SPA
- Ballyteige Burrow SPA
- Tacumshin Lake SPA
- Wexford Harbour and Slobs SPA
- The Raven SPA
- The Murrough SPA

Additional European sites in Ireland and France and areas of the UK (outside of the European Network of sites) have also been taken forward to the NIS as they fall within foraging range for grey seal or Harbour seal or are within a management unit for Bottlenose Dolphin or Harbour Porpoise. However, it should be noted that LSEs on the Conservation Objectives of these sites, alone or in-combination with other projects and plans, were not identified in the SISAA (MERC, 2024)

A list of European sites and the relevant Qualifying Interests (QIs) and Special Conservation Interests (SCIs) identified as having the potential for LSEs are given in Table 1.

Table 1. European sites with potential for LSEs
*Conservation objectives have not been published for marine mammals at Hook Head SAC or Carnore point SAC. CO's for West Connacht Coast SAC and Rockabill to Dalkey Islands SAC used as a proxy.

SAC	Conservation Objectives*	Assessment of Attributes
Hook Head SAC	To maintain the favourable conservation condition of Common Bottlenose Dolphin in Hook Head SAC.	The operation of MBES may lead to may lead to negative effects on the artificial barrier attribute at this site.
	To maintain the favourable conservation condition of Harbour Porpoise in Hook Head SAC.	The operation of MBES may lead to may lead to negative effects on the artificial barrier attribute at this site.
Saltee Islands SAC	To maintain the favourable conservation condition of Grey Seal in the Saltee Islands SAC.	Vessel presence may lead to negative effects on the disturbance attribute for grey seal this site.
Carnsore Point SAC	To maintain the favourable conservation condition of Harbour Porpoise at Carnsore Point SAC	The operation of MBES may lead to may lead to negative effects on the artificial barrier attribute at this site.
Slaney River Valley SAC	To maintain the favourable conservation condition of Harbour seal at Slaney River Valley SAC	Vessel presence may lead to negative effects on the disturbance attribute for Harbour seal this site.
SPAs		
Tramore Back Strand SPA	To maintain the favourable conservation condition of the following species which are a SCI for Tramore Back Strand SPA: 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]	Vessel presence may lead to negative effects on the distribution attribute for these species within the site.
Bannow Bay SPA	To maintain the favourable conservation condition of the following species which are a SCI for Bannow Bay SPA: 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	Vessel presence may lead to negative effects on the distribution attribute for these species within the site.

	Godwit (Limosa limosa) [A156], Bar-tailed Godwit (Limosa lapponica) [A157], Curlew (Numenius arquata) [A160], Redshank (Tringa totanus) [A162]	
Ballyteige Burrow SPA	To maintain the favourable conservation condition of the following species which are a SCI for Ballyteige Burrow SPA: 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]	Vessel presence may lead to negative effects on the distribution attribute for these species within the site.
Tacumshin Lake SPA	To maintain the favourable conservation condition of the following species which are a SCI for Tacumshin Lake SPA: Little Grebe (Tachybaptus ruficollis) [A004], Bewick's Swan (Cygnus columbianus bewickii) [A037], Whooper Swan (Cygnus cygnus) [A038], Wigeon (Anas penelope) [A050], Gadwall (Anas strepera) [A051], Teal (Anas crecca) [A052], Pintail (Anas acuta) [A054], Shoveler (Anas clypeata) [A056], Tufted Duck (Aythya fuligula) [A061], Coot (Fulica atra) [A125], Golden Plover (Pluvialis apricaria) [A140], Grey Plover (Pluvialis squatarola) [A141], Lapwing (Vanellus vanellus) [A142], Black-tailed Godwit (Limosa limosa) [A156]	Vessel presence may lead to negative effects on the distribution attribute for these species within the site.
Wexford Harbour and Slobs SPA	To maintain the favourable conservation condition of the following species which are a SCI for Wexford Harbour and Slobs SPA: Little Grebe (Tachybaptus ruficollis) [A004], Great Crested Grebe (Podiceps cristatus) [A005], Cormorant (Phalacrocorax carbo) [A017], 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], Wigeon (Anas penelope) [A050], Teal (Anas crecca) [A052]Mallard (Anas platyrhynchos) [A053], Pintail (Anas acuta) [A054], Scaup (Aythya marila) [A062], Goldeneye (Bucephala clangula) [A067], Red-breasted Merganser (Mergus serrator) [A069], Hen Harrier (Circus cyaneus) [A082], Coot (Fulica atra) [A125], Oystercatcher (Haematopus ostralegus) [A130], Golden Plover (Pluvialis apricaria) [A140], Grey Plover (Pluvialis	Vessel presence may lead to negative effects on the distribution attribute for these species within the site.

	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], Little Tern (Sterna albifrons) [A195], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]	
The Raven SPA	To maintain the favourable conservation condition of the following species which are a SCI for The Raven SPA: Grey Plover (Pluvialis squatarola) [A141], Sanderling (Calidris alba) [A144], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395] Wetland and Waterbirds [A999	Vessel presence may lead to negative effects on the distribution attribute for these species within the site.
The Murrough SPA	To maintain the favourable conservation condition of the following species which are a SCI for The Murrough SPA: Greylag Goose (Anser anser) [A043], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Wigeon (Anas penelope) [A050], Teal (Anas crecca) [A052], Black-headed Gull (Chroicocephalus ridibundus) [A179], Herring Gull (Larus argentatus) [A184], Little Tern (Sterna albifrons) [A195]	Vessel presence may lead to negative effects on the distribution attribute for these species within the site.
The additional Irish SACs listed below were, based on MARA policy, taken forward to the NIS as they are within a management Unit for Harbour Porpoise or bottlenose dolphin or foraging range of grey seal or harbour seal. The SISAA did not identify any potential for LSEs on these sites		
Blackwater Bank SAC	Harbour porpoise	SPR link to site too weak
Codling fault zone SAC	Harbour Porpoise	SPR link to site too weak
Rockabill to Dalkey Islands SAC	Harbour Porpoise	SPR link to site too weak
Lambay Island SAC	Harbour porpoise/Grey seal/Harbour Seal	SPR link to site too weak
West Connacht Coast SAC	Harbour Porpoise	SPR link to site too weak
Blasket Islands SAC	Harbour Porpoise/Grey seal	SPR link to site too weak
Inishbofin and Inishshark SAC	Grey seal	SPR link to site too weak
Roaringwater Bay and Islands SAC	Harbour Porpoise/Grey seal	SPR link to site too weak
Kenmare River SAC	Harbour Porpoise	SPR link to site too weak
The French SACs listed below were, based on MARA policy, taken forward to the NIS as they are within a management Unit for Harbour Porpoise or foraging range of grey seal. The SISAA did not identify any potential for LSEs on these sites		

Abers – Côte des legends	Harbour porpoise/Grey seal	SPR link to site too weak
Ouessant Molène	Harbour porpoise/Grey seal	SPR link to site too weak
Nord Bretagne DH	Harbour porpoise	SPR link to site too weak
Cote de Granit Rose-Sept Iles	Harbour porpoise/Grey seal	SPR link to site too weak
Tregor Goëlo	Harbour porpoise	SPR link to site too weak
Côtes de Crozon	Harbour porpoise	SPR link to site too weak
Chaussée de Sein	Harbour porpoise	SPR link to site too weak
Récifs et landes de la Hague	Harbour porpoise	SPR link to site too weak
Anse de Vauville	Harbour porpoise	SPR link to site too weak
Baie de SaintBrieuc – Est	Harbour porpoise	SPR link to site too weak
Banc et récifs de Surtainville	Harbour porpoise	SPR link to site too weak
Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard	Harbour porpoise	SPR link to site too weak
Chausey	Harbour porpoise	SPR link to site too weak
Estuaire de la Rance	Harbour porpoise	SPR link to site too weak
Baie du Mont Saint Michel	Harbour porpoise	SPR link to site too weak
Cap d'Erquy-Cap Fréhel	Harbour porpoise	SPR link to site too weak
Baie de Morlaix	Harbour porpoise/Grey seal	SPR link to site too weak
The UK areas listed below were, based on MARA policy, taken forward to the NIS as they are within a management Unit for Harbour Porpoise or bottlenose dolphin The SISAA did not identify any potential for LSEs on these sites		
Lleyn Peninsula and the Sarnau SAC	Bottlenose dolphin	SPR link to site too weak
Cardigan Bay SAC	Bottlenose dolphin	SPR link to site too weak
North Anglesey Marine SAC [U	Harbour porpoise	SPR link to site too weak
West Wales Marine SAC [UK0030397]	Harbour porpoise	SPR link to site too weak
Bristol Channel Approaches SAC	Harbour porpoise	SPR link to site too weak

5. Assessment of Likely Significant Effects

The screening determination identified the following as having the potential for likely significant effects.

- Disturbance from underwater noise, resulting from the operation of a multibeam echosounder (MBES), and vessel presence with the potential for temporal disturbance effects on Marine Mammals.
- Disturbance from vessel operations within close proximity to the intertidal foraging habitats for wintering waterbirds species with the potential for them to temporarily abandon their foraging habitat.
- Potential for in-combination effects related to 8 projects resulting from a temporal overlap with underwater noise generating activities.

5.1. Marine Mammals

5.1.1. Bottlenose Dolphin

Bottlenose Dolphin is a QI for Hook Head SAC. The conservation objectives for Bottlenose Dolphin in Hook Head SAC have not been published so we have taken West Connacht Coast SAC as a proxy.

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 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 dolphin.

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 Carnsore Point SAC and Blackwater Bank SAC with which there is a spatial overlap with the proposed project. However not underwater noise generating activities are proposed for the waters in or surrounding Blackwater bank SAC. Mitigation to ensure the proposed surveys do not give rise to significant effects on Harbour Porpoise at Carnsore Point SAC, any European Site designated for Harbour porpoise the mitigation proposed in section 6.1 is recommended.

The conservation objectives for Harbour porpoise at this site have not been published so we have taken Rockabill to Dalkey Island SAC as a proxy.

Table 3. COs for Harbour porpoise

Conservation objective: To maintain the favourable conservation condition of Harbour porpoise in "Hook Head SAC and Carnsore Point 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 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 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.

Table 4. COs for Grey seal and Harbour seal

Conservation objective: To maintain the favourable conservation condition of Grey seal within Saltee Islands SAC. To maintain the favourable conservation condition of Harbour seal within Slaney River Valley 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 grey seal 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 Harbour 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 are possible.

Target 3: 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 are possible.

Target 4: 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 5: 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 the following SPAs

- Tramore Back Strand SPA
- Bannow Bay SPA
- Ballyteigue Burrow SPA
- Tacumshin Lake SPA
- Wexford Harbour and Slobs SPA

- The Raven SPA
- The Murrough 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. CO's for wintering waterbirds

Conservation objective: To maintain the favourable conservation condition of the SCI's 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 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. Potential for in-combination effects

The SISAA indicated a total of 9 projects that may have the potential for likely significant effects (See Table 2.). Mitigation to address the potential for in-combination effects is proposed in section 6.4.

Table 6. Project identified as having the potential for in combination effects

Project No.	Application licence no.	Applicant	Description	Location	Potential for cumulative effects
1	LIC240006	Department of the Environment, Climate & Communications	Deployment of the Marine Institute's R.V. to undertake a geophysical survey in the South Coast DMAP to inform future offshore renewable energy development.	Spatial overlap	N/A project recently completed
2	FS007616	Ruby Offshore Energy Ltd	Site Investigation for Offshore Wind Farm, off the coast of Counties Wexford, Waterford, Cork	<5km	Potential for temporal overlap
3	FS007445	Blackwater OWL Offshore Wind Ltd.	Geophysical, geotechnical, environmental and	Spatial overlap	Potential for temporal overlap

		marine surveys off the Wexford coast	metocean site investigations		
4	FS006982	Energia site investigations for wind farm off Helvick Head	Geophysical, Geotechnical, Archaeological, Ecological, Oceanographic and Meteorological investigations	Spatial overlap	Potential for temporal overlap
5	FS007384	Celtic Horizon Offshore Wind Farm Ltd site investigations off the coast of Wexford and Waterford	geophysical, geotechnical, archaeological, ecological, metocean and benthic surveys	Spatial overlap	Potential for temporal overlap
6	FS007464	Bore Array Ltd site investigations for wind farm off Co. Wexford	site investigation works to determine the suitability for cable routeing, and positioning of turbines and other electrical infrastructure associated with the development of an OWF	Spatial overlap	Potential for temporal overlap
7	FS007488	Celtic Offshore Renewable Energy site investigation off the coast of Wexford and Waterford	geotechnical, environmental and metocean site investigations	Spatial overlap	Potential for temporal overlap
8	FS007621	Péarla Offshore Wind Ltd.Site investigations for export cable for proposed offshore wind farm	Geophysical, Geotechnical, Archaeological, Ecological, Oceanographic and Meteorological investigations	Spatial overlap	Potential for temporal overlap
9	FS007436	Voyage Offshore Array Ltd. Site investigations off coast of Wexford & Waterford	Geophysical, Geotechnical, Archaeological, Ecological, Oceanographic and Meteorological investigations	Spatial overlap	Potential for temporal overlap

6. Mitigation measures

6.1. Bottlenose dolphin and Harbour porpoise

The National Parks and Wildlife Service *Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters* recommends a distance of 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;

(iii) 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

Multibeam, single beam, side-scan sonar surveys

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 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.

6.3. Wintering waterbirds

To avoid disturbance to foraging wintering waterbirds bathymetric surveys should not be carried out within the SPA areas detailed in table 1 between the months of September to March.

6.4. Cumulative effects

Eight of the total of nine projects, identified as having the potential to lead to cumulative effects, relate to offshore wind development projects. However, due to current Government policy to establish a plan-led approach to offshore wind development, there is uncertainty if these projects will no proceed or proceed in their current format. One project (LIC240006) relates to bathymetric surveys which overlap with the proposed project site. However, this project is now completed. It is therefore recommended that the timing of the proposed project is co-ordinated so that no potential for a temporal overlap with any of the remaining 8 projects identified should they proceed.

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. Since 1 January 2021 nature conservation areas in the UK (including Northern Ireland) are no longer part of the Natura 2000 network (OPR, 2021).

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

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

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.