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Rialtais Áitiúil agus Oidhreachta
Department of Housing,
Local Government and Heritage

SCREENING FOR APPROPRIATE ASSESSMENT REPORT

Application No. FS007354

26th January 2023

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Statement of Authority

This Screening for Appropriate Assessment Report has been undertaken by [REDACTED] and Dr [REDACTED]

[REDACTED] is a marine environment advisor with a wide range of experience from environmental management, environmental consultancy and the implementation of marine environmental policy. [REDACTED] has completed a BSc in Environmental Science and an MSc in Environmental Engineering from Trinity College Dublin. [REDACTED] has worked as an environmental manager for an IPC licenced facility, overseen environmental compliance tests for Ringsend wastewater treatment plant, carried out environmental assessment reports for JB Barry Engineers, and for the last 15 years she has worked with a number of government Departments in the marine environment sector; primarily in foreshore and the implementation of the Marine Strategy Framework Directive (MSFD). Under the MSFD she has developed and delivered Assessments, determined Good Environmental Status and Targets and delivered Monitoring Programmes and Programmes of Measures. [REDACTED] has been responsible for the implementation of all aspects of Descriptor 2 (Non-indigenous Species) and Descriptor 11 (Underwater Noise) of the MSFD. [REDACTED] has been Ireland representative on the European Commission's TG Noise and the OSPAR ICG-Noise and until recently [REDACTED] was responsible for the reporting of Irish Marine Impulsive Noise data to the OSPAR Noise Registry <https://www.ices.dk/data/data-portals/Pages/impulsive-noise.aspx>

Dr [REDACTED] is an experienced marine ecologist with a wide range of experience from conservation, developing quality index tool for Water Framework Directive, habitat mapping, aquaculture to deep water reef ecology. She completed a Ph.D. in the polychaete taxonomy and ecology in NUIG. Following which she undertook Post-Doctoral research on shallow water hydrothermal vent ecosystems in the Institute of Marine Biology of Crete. For the last 14 years she has worked with the National Parks and Wildlife Service as a marine ecologist where she developed the Site Specific Conservation objectives for all marine Special Areas of Conservation. In this position she also reviewed Appropriate Assessments for the Aquaculture Licences and drafted Departmental responses as part of the statutory consultations for this process. She has considerable experience in the Habitats Directive and Article 6 Assessments and the case law pertaining to them. With NPWS she developed and delivered Article 17 monitoring programmes for Annex I habitats and Annex V species. She is on the Natura 2000 Marine Expert Working Group, the OSPAR Benthic Habitats Expert Group and MSFD Integrated Monitoring Programme working group. She has been on a number of research steering groups including the NPWS/EPA co-funded CLEAR project on restoration of coastal lagoons, EcoSystem Services VIBES project and the Ecostructure project [<https://ecostructureproject.aber.ac.uk/>]. She has been Ireland's representative on the Marine and Coastal Biodiversity expert working group for the UN Convention on Biodiversity.

1 Introduction

1.1 Project Overview

Kinsale Offshore Wind Limited are seeking a Foreshore Licence to conduct site investigation surveys to assess the suitability of the area for the installation of a proposed windfarm array.

1.2 Application documents submitted

Kinsale Offshore Wind Limited submitted a foreshore licence application for the proposed site investigation surveys on the 16th March 2021:

- i. Foreshore Application form dated 22nd December 2021
- ii. Foreshore Licence Map updated 13th January 2022
- iii. Supporting Information for Screening for Appropriate Assessment
17th December 2021
- iv. Natura Impact Statement 17th December 2021
- v. Annex IV Risk Assessment 17th December 2021
- vi. Non-Statutory Environmental Report 17th December 2021
- vii. Statement of Compliance with National Marine Planning Framework (NMPF)
- viii. Schedule of Works 17th December 2021

1.3 Legislative background and AA process

Under Article 6.3 of the Habitats Directive (92/43/EEC) Member States are required to consider the potential effects of any project or plan which is not directly connected with, or necessary to, the management of a European site but is likely to have a significant effect on the site before a decision can be made to allow the plan or project to proceed. In order to ascertain if the plan or project, either alone or in-combination with other plans or projects, is likely to have significant effects on a European site an Appropriate Assessment of the implications of the plan or project on the site's conservation objectives is required. The first step in the process is screening to determine if an Appropriate Assessment is required.

Under the Foreshore Act, as amended, a lease or licence must be obtained from the Minister for Housing, Local Government & Heritage before carrying out activities within the Foreshore area. This area is defined as the HWM to the 12 nautical mile limit. As the Consenting Authority, the Department must carry out a screening for an Appropriate Assessment on any Foreshore application which may have significant effects on the conservation objectives of a European site. To enable the consenting authority to carry out its statutory obligations the applicant provides the Department with sufficient information to allow it to carry out a screening for an appropriate assessment.

This report presents the results of the Screening for Appropriate Assessment of the proposed project. It determines whether the proposed project, either alone or in-combination with other plans or projects, is likely to have significant effects on a European site. It will establish if a stage 2 appropriate assessment is required, thus meeting the Department's statutory obligations under the European Communities (Birds and Natural Habitats) Regulations 2011 to 2021 (the "Habitats Regulations"), to ensure compliance with the Habitats Directive (92/43/EEC).

1.4 Methodology

This report has been prepared with reference to the following guidelines and legislation:

- 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. Office for Official Publications of the European Communities, Luxembourg.
- Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities. DEHLG, 2009. Revision 2010.
- Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters. Department of Arts, Heritage and the Gaeltacht, 2014
- Appropriate Assessment Screening for Development Management OPR Practice Note PN01 March 2021
- Relevant case law

2 Project Description

This Foreshore Licence application is for site investigation surveys to assess the suitability of the area for the installation of a proposed fixed foundation windfarm array. The data obtained will be used to inform the design stage, development feasibility and optimise project design.

2.1 Location

The proposed Foreshore Licence Application area is approximately 13km off the coast of Cork at the nearest point (Figure 1). The total area of the proposed investigation area is 16,683ha.

The Foreshore Licence Application area does not overlap with any European site.

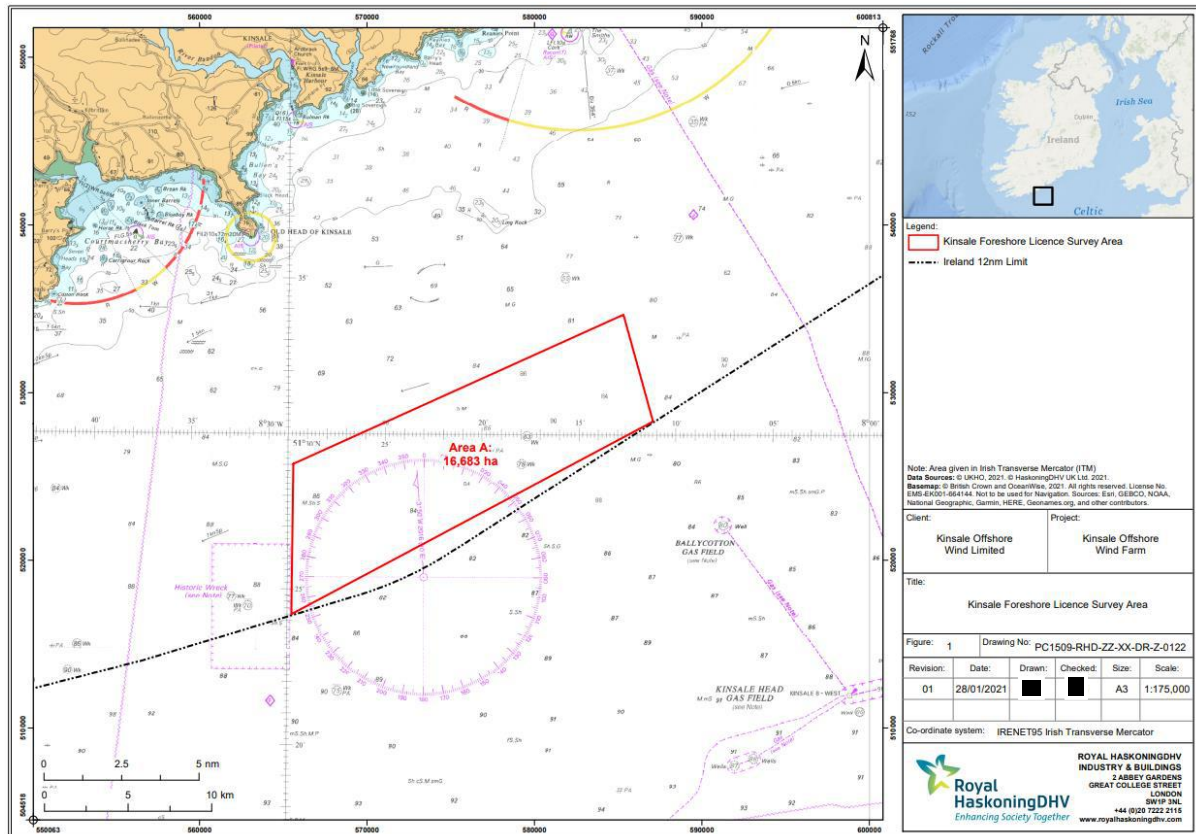


Figure 1 Site location map

2.2 Description of the receiving environment

The southern boundary of the application area extends to the 12nm limit. The average water depth in this area is approximately 90m and the seafloor substrate is that of muddy sand (Figure 2).

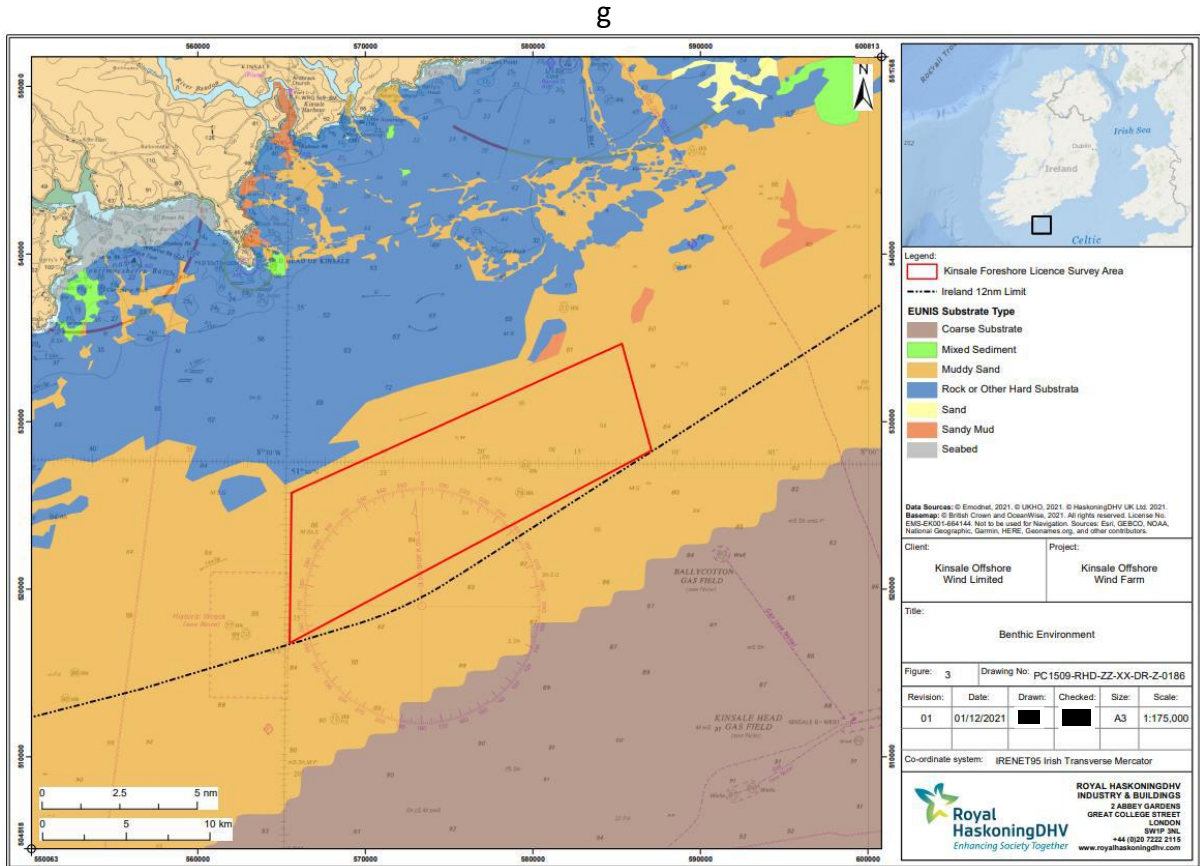


Figure 2 Seafloor substrate in the vicinity of the foreshore licence survey area.

2.3 Description of the proposed survey works

2.3.1 Geophysical survey

Geophysical surveys will be carried out in the Foreshore Licence Application Area using a variety of equipment including Multibeam echosounder (MBES), Magnetometer, Sub bottom profiler (SBP) and Side scan sonar (SSS). The typical frequencies and the maximum peak sound pressure levels (SPL_{peak}) of the proposed geophysical equipment and the positioning equipment is given in table 1. A Magnetometer will be used to detect geomorphological anomalies and ferrous obstructions. This is not included in the table as it emits no sound.

The geophysical survey is expected to take place in the Quarter 2/Quarter 3 of 2023 and last approximately three months.

| Noise Source | Frequency | Sound Pressure Level (dB re 1µPa @ 1m) |
|--------------------|-------------------|--|
| MBES | 200 to 400 kHz | 210dB |
| SSS | 600 kHz | 215-226 dB |
| SBP – Pinger/Chirp | 0.2 kHz to 20 kHz | 222 dB |
| USBL | 20-30 kHz | 200 dB |

Table 1 Summary of noise sources from geophysical surveys

2.3.2 Geotechnical survey

The purpose of the geotechnical site investigations are for investigating the stability of the soil to provide good quality geotechnical data to facilitate the detailed design and certification of the:

- Potential offshore wind turbine foundations (Monopiles, Jacket/Tripods); and
- Development and calibration of existing ground models.

An indicative number of 30 Vibrocore and/or Cone Penetration Test (CPT) are proposed.

The taking of Vibrocores is an extremely localised activity and would not result in any significant disturbance to the seabed or to mobile species from underwater noise. Vibrocores penetrate up to 6m into the seabed and have a diameter of approximately 80mm to 150mm.

CPT does not involve the removal of any material and the hole created by the penetration of the cone (approx. 5cm diameter), will infill almost instantly upon extraction of the rods. The CPT unit has a footprint of approximately 8m², which will sit on the sea floor for the duration of the test, commonly 2-3 hours. There are no significant underwater acoustic signal results from the operation of CPT. Data indicates that sound pressure levels from CPTs are not at a level that is thought to cause a disturbance or injury to marine mammals (Erbe & McPherson, 2017).

An indicative number of 10 boreholes are proposed. Borehole sampling involves the penetration of a drill pipe to a scheduled depth, up to 80m below the seafloor. This will cause disturbance to the area of the drill pipe penetration itself and the area directly surrounding this by the mound created by drill risings. An estimated 2m² area (per drill) of the seafloor will be affected by the footprint of the mound created by drill cuttings. Immediately following the removal of the cores, the void in the seabed will fill naturally leaving only a minor impression on the seafloor

The geotechnical survey is expected to take place in the Quarter 2/Quarter 3 of 2024 and last approximately three months.

| Noise Source | Typical Frequency | Typical Sound Pressure Level (dB re 1µPa @ 1m) |
|-----------------|-------------------|---|
| Boreholes | 120 Hz | 148 - 151 dB |
| CPT/seismic CPT | Up to 600 Hz | 90 - 145 dB |
| Vibrocore | 50 Hz | 188 dB |

Table 2 Summary of noise sources from geotechnical surveys

2.3.2 Archaeological survey

No additional dedicated archaeological surveys are likely to be required as the geophysical surveys will provide data suitable for the interpretation and assessment of features of potential archaeological significance.

2.3.4 Marine Benthic Ecology

The macrofaunal and sediment composition of the area will be sampled to inform a potential

Environmental Impact Assessment (EIA) and Appropriate Assessment (AA), and for the characterisation and monitoring of marine habitats. An indicative number of 40 grab and/or drop-down video sampling are proposed.

The benthic ecology survey is expected to take place in the Quarter 3 of 2024 and last approximately three months.

2.3.5 Seabird and Marine Mammal Aerial Survey

To inform a potential EIA and AA, seabird and marine mammal surveys will be undertaken, most likely in conjunction with one another. All surveys would also note the presence of elasmobranchs, turtles and jellyfish. It is proposed that a methodology based on the European Seabirds at Sea Partnership (ESAS) survey method be employed. The aerial surveys will use high-resolution digital photography and/or video to capture high resolution images which will be subsequently analysed, and all sightings of species recorded. The exact methodology will be discussed with the consultant engaged to undertake the work and consultations with National Parks and Wildlife Service (NPWS) will be undertaken.

As aerial survey methods are exclusively observational and deployment of equipment is not required, potential impacts are not anticipated due to flight height altitude (Žydelis et al., 2019).

The boat-based survey, if required, would be carried out using standard transect survey methods and sightings of marine mammals and seabirds would be recorded. The boat-based survey methods are exclusively observational and no equipment will be deployed.

2.3.6 MetOcean (current and wave) Survey

Up to two LiDAR units, wavebuoys, marker buoys and Acoustic Doppler Current Profilers (ADCP) will be deployed on site (surface or seabed mounted). The exact details of the LiDAR buoy (and other metocean equipment) and mooring/seabed frame arrangement and locations will be confirmed following a competitive tender process and, where appropriate, results of the geophysical data and consultation.

3 Screening for Appropriate Assessment

3.1 Management of Natura 2000 site/s

Plans or projects that are directly connected with or necessary to the management of a Natura 2000 site do not require AA. The proposed project is not directly connected with or necessary for the management of a Natura 2000 site. Therefore this project is subject to screening for Appropriate Assessment to determine if it alone, or in-combination with other plans or projects, is likely to cause significant effects to a European site.

3.2 Identification of possible effects

A European site is only at risk of likely significant effects where the Source-Pathway-Receptor link exists between the proposed development and the European site (OPR 2021). Potential connectivity was considered if there was overlap with the Foreshore Licence Application Area and an SAC (direct effects) or if the SAC was within range of the effects of the proposed activity (indirect effect).

3.2.1. Annex I habitats

The potential environmental impacts on Annex I Habitats as a result of the site investigation surveys are physical disturbance and habitat loss. Physical disturbance from equipment used to sample sediments may lead to an increase in suspended sediment concentrations (SSC). Such increases can lead to the clogging of feeding apparatus of filter feeders, smothering of sessile species, increase in scouring and rendering hard surfaces unsuitable for epibenthic settlement.

3.2.2 Annex II species

In Ireland Annex II marine mammal species include the European otter, grey seal, harbour seal, harbour porpoise and bottlenose dolphin. As a result of site investigation surveys marine mammals may be impacted by visual disturbance, injury due to collision with survey vessels, above water noise disturbance and from the effects of underwater noise.

For otters there is potential for behavioural effects due to increased noise levels and visual stimuli from the proposed activities in the shallow subtidal. Effects may include reduced foraging opportunities and unfavourable commuting routes.

Vessel strikes are a known cause of mortality in marine mammals (Laist et al., 2001; Wilson et al., 2020). Injuries as a result of collision may also result in individuals becoming vulnerable to secondary infections. Slower vessels following a consistent trajectory allow animals the opportunity to avoid collisions. The risk of fatality is also reduced if vessels are moving slowly. The introduction of underwater noise through geotechnical and geophysical surveys has the potential to disturb and/or injure marine mammals if the frequency/frequencies of the sound emitted fall within their hearing range. Marine mammals rely on sound to navigate, to communicate with one another and to sense and interpret their surroundings. This is of particular concern for cetacean species which are confined to the marine environment.

Currently three groups of cetaceans are recognised depending on their known auditory ability and functional frequencies (Table 3). Seals have differing auditory ability depending on if they are in air or in water. They are therefore, from a functional point of view, divided into two groups, in water and in air.

| Cetaceans | | | Pinnipeds | |
|---------------------------------|---------------------------------|---|----------------------------|----------------------------|
| Low frequency 7 Hz-35 kHz | Mid-frequency 150 Hz-160 kHz | High frequency 200 Hz–180 kHz | in water 5 Hz–86 kHz | in air 75 Hz-30 kHz |
| Baleen whales | Most toothed whales, dolphins | Certain toothed whales, porpoise | All species | All species |
| Species- Ireland Humpback whale | Species– Ireland Sperm whale | Species– Ireland Pygmy sperm whale *Harbour | Species– Ireland Grey seal | Species– Ireland Grey seal |
| Blue whale | Killer whale | porpoise | Harbour seal | Harbour seal |
| Fin whale | Long-finned pilot whale | | | |
| Sei whale | Beaked whale species | | | |
| Minke whale | *Dolphin species | | | |

Table 3 Known auditory ability and functional frequencies cetacean species and seals (from Southall *et al.*, 2007). *Southall *et al.*, 2019 updated the marine mammal hearing groups, adding a Very High-frequency cetacean group which includes Harbour porpoise and now including Bottlenose dolphin in the High frequency group.

Southall *et al.* (2007) identified thresholds of peak sound pressure (SPL) and sound exposure (SEL) from discrete sound events (single or multiple, within a 24-hr period) that would be expected to elicit Temporary Threshold Shift (TTS) and/or Permanent Threshold Shift (PTS) in receiving marine mammals. Southall *et al.*, (2019) revised noise exposure criteria to predict the onset of auditory effects in marine mammals (Table 4).

| Marine Mammal hearing group | TTS onset: SEL weighted | TTS onset: Peak SPL unweighted | PTS onset: SEL weighted | PTS onset: Peak SPL unweighted |
|-------------------------------|-------------------------------|--------------------------------------|-------------------------------|--------------------------------------|
| Low frequency Cetaceans | 168 | 213 | 183 | 219 |
| High frequency Cetaceans | 170 | 224 | 185 | 230 |
| Very High frequency Cetaceans | 140 | 196 | 155 | 202 |
| Seals in water | 188 | 226 | 203 | 218 |
| Seals on land | 146 | 161 | 161 | 144 |

Table 4 TTS- and PTS- onset thresholds for marine mammals exposed to impulsive noise SEL thresholds in dB re $1\mu\text{Pa}^2\text{s}$ under water and dB re $20\mu\text{Pa}^2\text{s}$ in air (for seals only) from Southall *et al.*, 2019.

Migratory fish

Many fish which possess swim bladders do not have anatomical connections with the ear and therefore do not have a high degree of hearing sensitivity compared to those with such connections. Atlantic Salmon have poor hearing sensitivity and are only capable of detecting low frequency tones (below 380Hz) and particle motion rather than sound pressure (NOAA, 2016). Shipping noise may be audible to salmon, however they are not sensitive to sound pressure levels. Water quality as a result of suspended sediment concentrations in the water column may act as a chemical barrier and prevent the successful passage of migratory fish.

3.2.3. Birds

The distance or stimulus for disturbance can depend on several factors (Cabot & Nisbet, 2013). Gulls display varied behaviour to disturbance depending on the stimuli but often gulls can tolerate a degree of disturbance and re-settle easily depending on the duration (Morrison & Allcorn, 2006)

Foraging common terns are considered to be of low sensitivity to disturbance from vessel traffic and associated activities (Garthe & Hüppop, 2004; Bradbury et al., 2014). Birds which forage underwater are vulnerable to underwater noise effects in addition to above water noise and visual effects.

Waders and wildfowl show different responses to disturbance depending on the species, the type of disturbance, the duration and context of their surrounding habitat, and activity they are undertaking (Cutts et al. 2013, Goss-Custard et al., 2019). Species like wigeon may be highly sensitive to some disturbance (Mathers et al., 2000) whilst exhibit low sensitivity to audio and visual disturbances (Cutts loc. cit., 2013). Redshank exhibit high disturbance responses to noise but low or tolerated responses to visual disturbance while lapwing are moderately sensitive to both visual and noise disturbance (Cutts loc. cit., 2013). Red-breasted mergansers in particular are notably sensitive to the disturbance associated with shipping traffic (Fleissbach et al., 2019).

Breeding seabirds nesting on shorelines or structures in proximity to human activities can be disturbed from their nests. Similarly other seabird aggregations or individual birds may be disturbed by presence of a vessel or on its approach (Althouse et al., 2019, Furness et al., 2012, Dierschke et al. 2017, Fleissbach loc.cit). Breeding colonies of common tern from relatively undisturbed areas may be disturbed on approach to their colonies and such disturbance can have consequences such as reduced breeding success.

For diving seabirds increases in suspended sediment concentrations may affect water clarity thus reducing foraging success. Underwater noise is also likely to cause disturbance to some species of diving seabird. It may affect prey acquisition, cause displacement from habitat or evoking an escape flight response (Black 2014, Dierschke loc.cit). Hansen et al. (2017) demonstrated the hearing sensitivity of cormorants during diving, indicating that such species which spend much of their foraging time underwater actively pursuing prey are likely to have hearing sensitivity and are therefore potentially vulnerable to anthropogenic underwater noise similar to cetaceans and seals. Seabirds whose predominant method of foraging is shallow diving, dip diving or surface feeding are unlikely to be impacted by underwater noise due to the brevity of exposure time and sensitivity to disturbance (Furness 2012, Fleissbach 2019).

Disturbance and displacement of species may have consequences at individual and population levels (Joint SNCB note, 2017). The survey works may also have effects on the prey species of these birds, reducing their availability which may then adversely affect survival and productivity.

3.2.4 Accidental spillage

This is a busy navigation area in which a lot of fishing, commercial and recreational vessels operate. Given that the surveys would amount to a single extra vessel in this area the likelihood of a collision resulting in a pollution event is considered insignificant. As vessels are required by law to adhere to regulations governing accidental leakages and spillages similarly the likelihood of such an occurrence is considered very unlikely.

3.2.5 Invasive Alien Species

Ships' hull may act as a vector for the introduction of invasive alien species. This may adversely affect the structure and functioning of benthic communities and their constituent species.

3.3 Identification of the relevant European site/s

Special Area of Conservations (SAC) were screened on the potential for connectivity between the proposed project and their qualifying interests. Potential connectivity was considered if there was overlap with the Foreshore Licence Application Area and an SAC (direct effects) or if the SAC was within range of the effects of the proposed activity (indirect effects).

3.3.1 Annex I habitats

As these works are being undertaken in the marine environment, using the Source-Pathway-Receptor model (OPR 2021), only the marine and coastal Annex I habitats were considered in this screening process.

The Foreshore Licence Application Area does not overlap with any SAC therefore there are no direct effects as a result of the proposed surveys. While sampling of the seafloor during geotechnical and benthic surveys may cause an increase in suspended sediment concentrations, this will be localised and temporary.

The nearest SAC with a marine Annex I habitat is 17km due east of the application area and therefore outside of the Zone of Influence of the proposed surveys.

Using this criteria no SAC was identified as being in the Zone of Influence of the proposed activity.

3.3.2 Annex II species

Migratory fish

Once they leave freshwater salmon migrate to their feeding grounds in the northern Atlantic. Recent studies have found that salmon populations migrate towards oceanographic fronts for feeding (Rikardsen *et al.*, 2021). Salmon from northwest Spain and southeast Ireland appear to move out to the shelf edge before crossing the Atlantic towards Greenland. Barry *et al.* (2020) found that individuals from Irish rivers in the northeast migrate out of the Irish Sea through the North Channel into deeper offshore waters further north. Therefore only SACs along the southern seaboard east of and in the vicinity of the Foreshore Licence Application Area were considered to be in the Zone of Influence of the proposed project.

The Freshwater Pearl Mussel utilises Atlantic salmon at a certain stage in its life cycle, Sea lamprey is a predator of salmon (OSPAR 2009). Therefore it is considered that if the salmon is significantly impacted by an activity there is a possibility that these species may also be negatively affected. The Zone of Influence for these species was considered the same as that for Atlantic salmon.

Recent information on Twaité Shad recorded movement of up to 950km from the River Severn with one individual detected in the Blackwater Estuary (Davies *et al.* 2020). However given the spatial and temporal nature of the proposed works only those SAC designated for shad species on the south coast of Ireland are considered to have connectivity with the Application Area; more distant sites are considered too far for any significant interaction to occur. This logic was also applied to sea lamprey which is a predator of both shad and salmon (OSPAR 2009). Similarly only SACs designated for River lamprey in the south coasts of Ireland were considered further in the screening process.

Using this criteria four SACs were identified to be considered further in the screening process. These are:

- Blackwater River (Cork/Waterford) SAC (002170)
- Lower River Suir SAC (002137)
- River Barrow and River Nore SAC 2162

- Slaney River Valley SAC (000781)

Marine mammals

After breeding most grey seals disperse away from their haul-out sites, therefore their usage of a particular SAC is very time and location specific. On this basis and considering available data on grey seal movements (e.g. Cronin *et al.*, 2011; SMRU Ltd, 2011; Russell and McConnell, 2014) there is potential for interactions between grey seals and projects 200km distant from the SAC for which they are designated. This is considered the Zone of Influence for this species.

In Ireland the foraging range for harbour seal ranges between 20km and 40km (Cronin 2010), using the precautionary principle that latter value was considered in the screening process and is taken as the Zone of Influence for this species.

Otters are a semi-aquatic species who use the marine environment for foraging. Otters that forage on the coast have flexible foraging times linked to the tides. The Zone of Influence for this species is 20km along the shore.

In Ireland there are a number of SACs designated for the cetaceans, harbour porpoise and common bottlenose dolphin. As these species are highly mobile species specific Management Units (MU) are used to assess to the effect of an activity on them. The Zone of Influence of a project which has the potential to impact on a species is considered to be the MU for that species which overlaps with the project. With respect to the proposed project the overlapping MU for harbour porpoise is the Celtic and Irish Seas and for the bottlenose dolphin the overlapping MU is the offshore Channel, Celtic Sea & South West England MU (IAMMWG, 2022).

Using this criteria nine Irish, twenty French, and four British sites were identified to be within the Zone of Influence of the proposed project. These are:

- Duvillaun Islands SAC
- Slyne Head Islands SAC
- Slyne Head Peninsula SAC
- West Connacht Coast SAC
- Lower River Shannon SAC
- Blasket Islands SAC
- Roaringwater Bay and Islands SAC
- Rockabill to Dalkey SAC
- Saltee Islands SAC
- Récifs et landes de la Hague
- Anse de Vauville
- Banc et récifs de Surtainville
- Chausey
- Baie du Mont Saint-Michel
- Estuaire de la Rance
- Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard
- Cap d'Erquy-Cap Fréhel
- Baie de Saint-Brieuc – Est
- Tregor Goëlo Est
- Côte de Granit rose-Sept-Iles
- Nord Bretagne DH

- Baie de Morlaix
- Abers - Côte des legends
- Ouessant-Molène
- Côtes de Crozon
- Chaussée de Sein SAC
- Cap Sizun SAC
- Côte de Cancale à Paramé
- Iles de la Colombiere, de la Nelliere et des Haches
- North Anglesey Marine / Gogledd Môn Forol
- West Wales Marine / Gorllewin Cymru Forol
- North Channel
- Bristol Channel Approaches / Dynesfeydd Môr Hafren

Table 3.1 Special Area of Conservation (SAC) and their qualifying interests to be considered further in the screening process. **The QIs in red are screened in for Stage 2 Appropriate Assessment.**

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|--|---------------------------|---|-----------------|------------------------------------|
| Blackwater River (Cork/Waterford) SAC [Site code IE002170] | 68km | Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Perennial vegetation of stony banks [1220] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0] <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Lutra lutra</i> (Otter) [1355] <i>Trichomanes speciosum</i> (Killarney Fern) [1421] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] | Out | No source-pathway-link |
| | | <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029] | In | Disturbance from underwater noise. |

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|--|---------------------------|--|----------------------|---|
| Roaringwater Bay and Islands SAC [Site code IE000101] | 62km | <p>Large shallow inlets and bays [1160] Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] Submerged or partially submerged sea caves [8330] Lutra lutra (Otter) [1355] Phocoena phocoena (Harbour Porpoise) [1351] Halichoerus grypus (Grey Seal) [1364]</p> | <p>Out</p> <p>In</p> | <p>No Source-Pathway-Receptor link</p> <p>Disturbance from underwater noise</p> |
| River Barrow and River Nore SAC [Site code IE002162] | 108km | <p>Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Reefs [1170] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritima) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260] European dry heaths [4030] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] Petrifying springs with tufa formation (Cratoneurion) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]</p> | Out | No Source-Pathway-Receptor link |

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|--|---------------------------|--|-----------------|-----------------------------------|
| Lower River Suir SAC [Site code IE002137] | 120km | <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] <i>Vertigo moulinsiana</i> (Desmoulin's Whorl Snail) [1016] <i>Austropotamobius pallipes</i> (White-clawed Crayfish) [1092] <i>Lutra lutra</i> (Otter) [1355] <i>Lampetra planeri</i> (Brook Lamprey) [1096] <i>Trichomanes speciosum</i> (Killarney Fern) [1421] <i>Petromyzon marinus</i> (Sea Lamprey) [1095] <i>Lampetra fluviatilis</i> (River Lamprey) [1099] <i>Alosa fallax fallax</i> (Twaite Shad) [1103] <i>Salmo salar</i> (Salmon) [1106] <i>Margaritifera durrovensis</i> (Nore Pearl Mussel) [1990] <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]</p> | In | Disturbance from underwater noise |
| | | <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] <i>Taxus baccata</i> woods of the British Isles [91J0]</p> | Out | No source-pathway-link |

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|---|---------------------------|---|-----------------|------------------------------------|
| | | Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] Lutra lutra (Otter) [1355] Austropotamobius pallipes (White-clawed Crayfish) [1092] Lampetra planeri (Brook Lamprey) [1096] Petromyzon marinus (Sea Lamprey) [1095] Lampetra fluviatilis (River Lamprey) [1099] Alosa fallax fallax (Twaite Shad) [1103] Salmo salar (Salmon) [1106] | In | Disturbance from underwater noise. |
| Saltee Islands [Site code IE000781] | 97km | Mudflats and sandflats not covered by seawater at low tide [1140] Large shallow inlets and bays [1160] Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Submerged or partially submerged sea caves [8330] Halichoerus grypus (Grey Seal) [1364] | Out | No Source-Pathway-Receptor link |
| Slaney River Valley SAC [Site code IE000707] | 168km | Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitriche-Batrachion vegetation [3260] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] | Out | No Source-Pathway-Receptor link |

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|--|----------------------------------|---|-----------------|---|
| | | Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0] Lampetra planeri (Brook Lamprey) [1096] Lutra lutra (Otter) [1355] Phoca vitulina (Harbour Seal) [136] | | |
| Blasket Islands SAC [Site code IE002172] | 186km | Reefs [1170] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030] Submerged or partially submerged sea caves [8330] | Out | No Source-Pathway-Receptor link |
| Duvillaun Islands SAC [Site code IE000495] | Within MU for Bottlenose Dolphin | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] <i>Halichoerus grypus</i> (Grey Seal) [1364] <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349] | In | Disturbance from underwater noise. |
| | | <i>Halichoerus grypus</i> (Grey Seal) [1364] | Out | Distance too great |
| Slyne Head Islands SAC [Site code IE000328] | Within MU for Bottlenose Dolphin | Reefs [1170] <i>Halichoerus grypus</i> (Grey Seal) [1364] <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349] | Out | No source-pathway-link. Distance too great |
| Slyne Head Peninsula SAC [Site code IE002074] | Within MU for Bottlenose Dolphin | Coastal lagoons [1150] Large shallow inlets and bays [1160] Reefs [1170] Annual vegetation of drift lines [1210] Perennial vegetation of stony banks [1220] | Out | No source-pathway-link. |

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|---------------|---------------------------|--|-----------------|------------------------------------|
| | | <p>Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Machairs (* in Ireland) [21A0] Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110] Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130] Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] European dry heaths [4030] Juniperus communis formations on heaths or calcareous grasslands [5130] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510] Alkaline fens [7230] Petalophyllum ralfsii (Petalwort) [1395] Najas flexilis (Slender Naiad) [1833]</p> <p>Tursiops truncatus (Common Bottlenose Dolphin) [1349]</p> | In | Disturbance from underwater noise. |

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|--|----------------------------------|--|-----------------|--|
| West Connacht Coast SAC [Site code IE002998] | Within MU for Bottlenose Dolphin | <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349] | In | Disturbance from underwater noise. |
| Rockabill to Dalkey SAC [IE003000] | Within MU for Harbour Porpoise | Reefs [1170] <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | Out In | No source-pathway-link. Disturbance from underwater noise |
| North Anglesey Marine / Gogledd Môn Forol [UK 0030398] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise |
| Bristol Channel Approaches / Dynesfeydd Môr Hafren [UK0030396] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| North Channel [UK 0030399] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| West Wales Marine / Gorllewin Cymru Forol [UK 0030397] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Récifs et landes de la Hague [FR2500084] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Anse de Vauville [FR2502019] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Banc et récifs de Surtainville [FR2502018] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Chausey [FR2500079] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Baie du Mont Saint-Michel [FR2500077] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Estuaire de la Rance [FR5300061] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|--|----------------------------------|--|-----------------|------------------------------------|
| Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard [FR5300012] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Cap d'Erquy-Cap Fréhel [FR5300011] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Baie de Saint-Brieuc – Est [FR5300066] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Tregor Goëlo Est [FR5300010] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Côte de Granit rose-Sept-Iles [FR5300009] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Nord Bretagne DH [FR2502022] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Baie de Morlaix [FR5300015] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Abers - Côte des legends [FR5300017] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Ouessant-Molène [FR5300018] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Côtes de Crozon [FR5302006] | Within MU for Harbour Porpoise | <i>Phocoena phocoena</i> (Harbour Porpoise) [1351] | In | Disturbance from underwater noise. |
| Chaussée de Sein [FR5302007] | Within MU for Bottlenose Dolphin | <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349] | In | Disturbance from underwater noise. |
| Cap Sizun [FR5310055] | Within MU for Bottlenose Dolphin | <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349] | In | Disturbance from underwater noise. |
| Côte de Cancale à Paramé [FR5300052] | Within MU for Bottlenose Dolphin | <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349] | In | Disturbance from underwater noise. |
| Iles de la Colombiere, de la Nelliere et des Haches [FR5310052] | Within MU for Bottlenose Dolphin | <i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349] | In | Disturbance from underwater noise. |

3.3.3 Birds

A Special Protection Area (SPA) is considered to have connectivity if it either overlaps with the Foreshore Licence Application Area or is within 15km of this area. It is acknowledged that seabirds generally have large foraging ranges (Woodward *et al.* 2019) and may occasionally occur in the Foreshore Licence Application Area from more distant SPAs. If the survey area represents the outer extent of the foraging range of species, such as Manx Shearwater which have very large ranges, then the connectivity between it and SPAs for which the species is an SCI is considered to be insignificant.

Using the above criteria only the Old Head of Kinsale is considered to be within the Zone of Influence of the proposed project:

- Old Head of Kinsale SPA

Table 3.2 Special Protection Areas (SPA) and their qualifying interests to be considered further in the screening process.

| Site and Code | Distance from Survey Area | Qualifying Interests | Screened In/Out | Potential source of impact |
|------------------------------------|---------------------------|--------------------------------------|-----------------|---|
| Old Head of Kinsale SPA [IE004021] | 13km | Kittiwake [A188] Guillemot [A199] | In | Disturbance from above water noise and visual impact. |

3.4 Assessment of Likely Significant Effects

3.4.1 Annex I Habitats

The proposed survey area does not overlap with an SAC. The Emodnet habitat data shows the survey area to be largely that of muddy sand (figure 2). Increases in suspended sediment concentrations will be temporary, localised and confined to a small area around the sampling station and are likely to be similar to background levels. Therefore the possibility of likely significant effects on any Annex I habitat as a result of the proposed project **can be excluded**.

3.4.2 Annex II species

Fish species are either hearing specialists or hearing generalists, Atlantic salmon (*Salmo salar*) and Sea Lamprey are classed as the latter. Shipping noise may be audible to the species however the addition of a single vessel to this busy maritime area would not significantly impact on these species passing through this Foreshore Licence Application Area. As they are not sensitive to sound pressure levels underwater noise from the proposed survey works will not negatively impact on these species. As the nature of seabed at this site is muddy sand, the levels of suspended sediment from benthic and geotechnical sampling where it occurs, will be localised and temporary and is therefore unlikely to impact on migratory fish species. The possibility of likely significant effects as a result of the proposed project on migratory fish species **can be excluded**.

For the proposed site investigations the expected frequency range of noise emissions from the USBL operations overlap with the hearing range of all cetacean hearing groups (table 4). The SPL from this equipment is within the range to cause Permanent Threshold Shift (PTS) in very high frequency cetaceans hearing group, this group includes Harbour porpoise. It is also at a level that can produce Temporary Threshold Shift (TTS) in seals in water. Therefore the

possibility of likely significant effects as a result of the proposed project on marine mammals within the Zone of Influence of the proposed project **cannot be excluded**.

3.4.2 Birds

Overwintering bird species favour wetland and intertidal habitats for foraging and roosting and do not forage in the offshore marine environment. Therefore there will be no spatial overlap between such species and the proposed surveys occurring in the open waters of the Foreshore Licence Application Area.

While it is acknowledged that some elements of the surveys may overlap with the breeding season of the qualifying interests of Sovereign Island SPA and Old Head of Kinsale SPA these sites are at a considerably greater distance than the 4km displacement buffer recommended by the JNCC (2022).

While it is acknowledged that species which use the area for feeding may be disturbed by the activities of the survey vessel, any visual or above water noise disturbance from an addition vessel in this busy maritime area is unlikely to be felt against background levels. Similarly the effects on prey species of SCIs as a result of the proposed works given the total available foraging area is limited, both spatially and temporally.

Information on the underwater hearing abilities of diving birds and evidence of the effects of underwater anthropogenic noise on them is very limited. Studies suggest that mortality occurs when in close proximity to the event (Danil & St Leger 2011). While seabird responses to approaching vessels are highly variable (e.g. Fliessbach *et al.* 2019), flushing disturbance would be expected to displace most diving seabirds from close proximity to the survey vessel and any towed equipment, thereby limiting their exposure to the highest sound pressures generated.

Therefore the possibility of likely significant effects as a result of the proposed project on bird species within the Zone of Influence of the proposed project **can be excluded**.

3.4.3 In-combination effects

Article 6(3) of the Habitats Directive requires that AA be carried out in respect of any plan or project which is likely to have a significant effect on one or more European sites, “either individually or in combination with other plans or projects”. Therefore, regardless of whether or not the likely effects of a plan or project are significant when considered in isolation, the potential for the plan or project to significantly affect European sites in combination with other past, present or foreseeable future plans or projects must also be assessed.

In a search of the Department’s Foreshore applications web site on the 16th of January 2023 a number of projects were identified which may have potential to have in-combination effects with the proposed project. A similar search of the Cork County Council web site on that date did not find any applications which may have possible in-combination effects with the proposed project.

| Application | Project | Application Status | In-combination effects |
|-----------------------------|---|----------------------|--|
| FS007139 Simply Blue Energy | Site investigations for ORE project off County Cork | Consultation 11/2022 | Possible in-combination effects if projects coincide with one another. |

| | | | |
|-----------------------------|---|------------------------|---|
| FS006859 DP Energy | Site investigations for ORE project Counties Waterford and Cork | Consultation 11/2022 | Possible in-combination effects if projects coincide with one another. |
| FS007136 ESB Helvick Head | Site investigations for ORE project off Counties Waterford and Cork | Consultation 02/2022 | Possible in-combination effects if projects coincide with one another |
| Kinsale Gas Decommissioning | Decommissioning of certain facilities of Kinsale Head, Cork | To be complete in 2023 | Possible in-combination effects if the projects were to coincide with each other. |
| FS007126 Port of Cork | Maintenance dredging | Applied 02/22 | Possible in-combination effects if the projects were to coincide with each other. |

Of these projects only those which have a temporal overlap with the proposed project are likely to have in-combination effects. Such effects, depending on the project, may include all or some of the following effects - above water noise disturbance, under water noise disturbance and visual disturbance.

The following projects are considered to have in-combination effects should there be temporary overlap with the proposed project:

- All ORE site investigation surveys
- Kinsale Gas Decommissioning.

Likely significant in-combination effects between this project and the above listed projects on the conservation objectives of Natura 2000 sites considered in this report **cannot be excluded** at this stage.

4. Conclusion

4.1 Appropriate Assessment Screening Conclusion

The qualifying interests of European sites which may experience likely significant effects as a result of the proposed project were identified using the Source-Pathway-Receptor approach.

Disturbance from underwater noise causing likely significant effects could not be discounted for the following Special Areas of Conservations:

- Blackwater River (Cork/Waterford)
- Roaringwater Bay and Islands
- River Barrow and River Nore
- Lower River Suir
- Saltee Islands
- Blasket Islands
- Duvillaun Islands
- Slyne Head Islands
- Slyne Head Peninsula
- West Connacht Coast
- Rockabill to Dalkey
- North Anglesey Marine / Gogledd Môn Forol
- Bristol Channel Approaches / Dynesfeydd Môr Hafren
- North Channel
- West Wales Marine / Gorllewin Cymru Forol
- Récifs et landes de la Hague
- Anse de Vauville
- Banc et récifs de Surtainville
- Chausey
- Baie du Mont Saint-Michel
- Estuaire de la Rance
- Baie de Lancieux, Baie de l'Arguenon, Archipel de Saint Malo et Dinard
- Cap d'Erquy-Cap Fréhel
- Baie de Saint-Brieuc – Est
- Tregor Goëlo Est FR5300010
- Côte de Granit rose-Sept-Iles
- Nord Bretagne DH
- Baie de Morlaix
- Abers - Côte des legends
- Ouessant-Molène
- Côtes de Crozon
- Chaussée de Sein
- Côte de Cancale à Paramé
- Iles de la Colombiere, de la Nelliere et des Haches

It is concluded that likely significant effects as a result of this project, alone or in-combination with other plans and projects, on the conservation objectives of European sites cannot be excluded and therefore an Appropriate Assessment is required.

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6. Site Specific Conservation Objectives

Version 1 of the site specific conservation objectives for the SACs were available on NPWS's website at the time of writing. They were not available for Bristol Channel Approaches / Dynesfeydd Môr Hafren UK0030396 or any of the French sites. Only generic conservation objectives were available for the Old Head of Kinsale SPA at this time.

Blackwater River (Cork/Waterford) SAC 002170

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002170.pdf

Roaringwater Bay and Islands SAC IE000101

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000101.pdf

River Barrow and River Nore SAC 002162

https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf

Lower River Suir SAC 002137

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Lower River Suir SAC 002137

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Saltee Islands SAC 000707

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Slaney River Valley SAC

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Blasket Islands SAC IE002172

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Duvillaun Islands SAC IE000495

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Slyne Head Islands SAC IE000328

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Slyne Head Peninsula SAC IE002074

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West Connacht Coast SAC IE002998

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Rockabill to Dalkey SAC IE003000

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North Anglesey Marine / Gogledd Môn Forol UK0030398

<https://data.jncc.gov.uk/data/f4c19257-2341-46b3-8e29-49665cd8f3d2/NorthAnglesey-Conservation-Advice.pdf>

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