

Response to Prescribed Body Observations

Summary:	Summary Response document on Sea Stacks Foreshore Licence Application Prescribed Body Observations
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ESB Wind Development Limited (Ltd), has applied for a foreshore licence to undertake marine site investigations to inform feasibility assessments and design relating to the Sea Stacks Offshore Wind project to the east of County Dublin and County Wicklow. These site investigation (SI) works include Geophysical surveys, Geotechnical surveys, Metocean surveys, Environmental/Ecological and Archaeological surveys.

A public consultation was undertaken as part of the foreshore licensing process between 23rd December 2021 and 30th January 2022 and nine observations were received from the following prescribed bodies:

- Observation 1: Nature Conservation – NPWS Development Applications Unit
- Observation 2: NPWS Underwater Archaeology Unit
- Observation 3: Commissioners of Irish Lights
- Observation 4: Inland Fisheries Ireland
- Observation 5: Marine Institute
- Observation 6: Marine Advisor (Engineering)
- Observation 7: Dept of Agriculture Food and the Marine (Marine Engineering Division & Sea-Fisheries Protection Authority)
- Observation 8: An Bord Iascaigh Mhara (BIM)
- Observation 9: Marine Advisor (Environmental)

ESB Wind Development Ltd (ESB) welcomes all observations received and addresses each one below either alone or collectively depending on the content of the observation.

1 Responses to Prescribed Body Observations

Observation 1: Nature Conservation – NPWS Development Applications Unit

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
<p>The survey works around the proposed Sea Stacks Offshore Wind farm, off Counties Dublin and Wicklow, have been evaluated by a Natura Impact Statement and other documents. The conclusion of the Article 6(3) supporting document is that the proposed works are unlikely to pose a significant likely risk to nature conservation interests in the vicinity. This is supported in relation to marine Annex I habitats.</p> <p>The “Risk Assessment for Annex IV Species” has indicated that there would be negligible impacts on ecological receivers from the proposed survey works. It does note that following the precautionary principle that relevant sections of “Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters” as outlined in Section 7 of the assessment document would be implemented. National Parks & Wildlife Service concur with this approach and requests that this provision be added as a condition of consent</p>	<p>ESB will comply with all licence conditions of any future foreshore licence, and the mitigation measures/monitoring set out in this application.</p>

Observation 2: NPWS Underwater Archaeology Unit

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
<p>The survey works around the proposed Sea Stacks Offshore Wind farm, off Counties Dublin and Wicklow, have been evaluated by a Natura Impact Statement and other documents. The conclusion of the Article 6(3) supporting document is that the proposed works are unlikely to pose a significant likely risk to nature conservation interests in the vicinity. This is supported in relation to marine Annex I habitats. The “Risk Assessment for Annex IV Species” has indicated that there would be negligible impacts on ecological receivers from the proposed survey works. It does note that following the precautionary principle that relevant sections of “Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters” as outlined in Section 7 of the assessment document would be implemented. National Parks & Wildlife Service concur with this approach and requests that this provision be added as a condition of consent.</p>	<p>ESB will comply with all licence conditions of any future foreshore licence, and the mitigation measures/monitoring set out in this application.</p>
<p>The Department refers to your notification in relation to the above Investigative Foreshore Licence Application (Offshore Renewable Energy) by ESB Wind Development Ltd. The application and supporting documents have been reviewed by the Underwater Archaeology Unit of the National Monuments Service of the Department of Housing, Local Government and Heritage. This Department is of the view that the submitted documents do not contain adequate information to allow for an informed opinion on whether the proposed mitigation measures offer sufficient amelioration of the potential impact(s) of the proposed geotechnical investigations on known and potential underwater and terrestrial archaeological heritage. It is not clear to this Department that due consideration has been given to the high number of historically-documented losses of ships which are recorded as having been wrecked in the development area but have yet to be located. In this regard, the Wreck Inventory of Ireland Database includes numerous entries for the coastal waters off Dublin, many of which are specifically noted as having been lost within the application area. The wrecks that are mapped in the submitted ‘Sea Stacks Offshore Wind – Site Investigation Accompanying Report’ should be considered a minimum number and there are likely to be many additional examples within the application area.</p> <p>All wrecks over 100-years old are protected under the 1987 and 1994 (Amendment) Acts of the National Monuments Acts. Many of these may, in turn, require the institution of exclusion zones to facilitate their protection in the course of the proposed works. It is essential therefore that the data from the proposed geophysical surveys is assessed in advance of geotechnical investigations being undertaken by a suitably qualified and experienced underwater archaeologist and the outcome of this furnished, with recommendations for mitigation measures, as part of an Underwater Archaeological Impact Assessment (see below) to the National Monuments Service. Similarly, the proposed landfall and shoreline areas included in the application area contain extensive intertidal and terrestrial archaeological heritage that requires inclusion in an Underwater Archaeological Impact Assessment. Given the scale of archaeological interventions required for this, and all ORE projects, this Department recommends that a Project Archaeologist is taken on to advise on archaeological matters going forward.</p>	<p>ESB respects and notes the concerns in relation to known and unknown wrecks. It is planned that a suitably qualified and experienced underwater archaeologist will be appointed to advise on the findings of the Geophysical survey and in relation to the proposed SI works.</p> <p>Geophysical surveys will be employed prior to intrusive works in both the intertidal and marine area to confirm the exact location of shipwrecks (and other seabed objects or debris). Geophysical surveys are non-intrusive but relevant licences will be sought from the National Monuments Service (NMS) of the Department of Housing, Local Government and Heritage under the National Monuments Acts 1930-2014 as required e.g., any dive survey or metal detection survey shall be licenced under the National Monuments acts 1930-2014. Early engagement with NMS on the scope of the geophysical survey will be undertaken. All works will be carried out in line with NMS requirements and relevant conditions of the Foreshore Licence.</p> <p>Archaeological analysis and interpretation of the geophysical surveys will be submitted to NMS. The interpretation and review of all relevant geophysical data shall be undertaken by an archae-geophysicist/archaeologist with due experience in the interpretation of such survey results in advance of the geotechnical works. The exact location of the intrusive investigation is not yet known and will be informed by the findings of the geophysical survey.</p> <p>Once final locations of intrusive activities are known, further discussions including consideration of geophysical surveys and other relevant data sources will be undertaken with NMS to identify any requirements for further mitigation. Prior to undertaking intrusive surveys, ESB will engage and consult with the NMS to determine any necessary buffer/exclusion areas around known sites and potential areas of archaeology. All necessary measures will be undertaken to prevent potential negative impacts.</p>

<p>In light of the above it is recommended that the Foreshore Unit request the following as CONDITIONS of any grant of a foreshore licence:</p>	
<p>All geophysical survey activities shall be licenced by the Department of Housing, Local Government and Heritage under the National Monuments Acts 1930-2014 and all survey methodologies shall be optimized, as advised by a suitably qualified and experienced archaeologist, to enable the capturing of archaeological data. Should any dive surveys be required in connection with proposed geophysical surveys and archaeological surveys these shall also be licenced under the Acts and said licences shall be obtained by a suitably qualified archaeologist with underwater/marine experience. Any dive survey shall be accompanied by a hand-held detection survey which shall also be licenced under the National Monuments Acts 1930-2014.</p>	<p>ESB have no objection to this condition and will ensure all relevant licences will be sought by a suitably qualified archaeologist with underwater/marine experience.</p>
<p>An Underwater Archaeological Impact Assessment of all proposed geotechnical works, including secondary impacts such as machinery movements, shall be prepared by a suitably qualified archaeologist with maritime and underwater experience. All geophysical survey data sets available from previous work for the proposed development area and all newly obtained geophysical survey data sets shall be utilised by the archaeologist and shall be incorporated into the assessment report. The assessment shall also include a desk study and a licenced wade/intertidal survey and licenced metal detection survey (where appropriate) of the intertidal area and a walkover of the areas within the application area. The overall results of the assessment shall be compiled into a report and forwarded to the National Monuments Service for review and comment in advance of the geotechnical works taking place. The assessment shall also include proposals for the protection of all documented potential and confirmed wrecks by the institution of a buffer/exclusion area around the sites during all works and for buffer/exclusion zones around all identified and potential areas of archaeological potential. Similarly, the report shall include proposals for mitigation of potential impacts on archaeology, such as avoidance, dive surveys, monitoring or test excavations. No geotechnical works shall be undertaken in advance of receipt of observations on the report from the National Monuments Service.</p>	<p>ESB has no objection to this condition and all relevant data will be made available to the appointed archaeologist to inform the underwater Archaeological Impact Assessment.</p> <p>ESB will undertake early engagement with the National Monument Service on the Underwater Archaeological Impact Assessment of the proposed geotechnical works. ESB will actively liaise to determine a suitable methodology and report timeline to mitigate any impact from, or delay to, the Geotechnical campaign.</p>
<p>All areas of the seabed where SI works will take place should be subject to a high resolution geophysical survey (as advised by a suitably qualified and experienced archaeologist) in advance of works taking place with the results assessed by the archaeologist. Where archaeological assessment of geophysical data is not possible, or data is not available or of sufficient resolution/standard and an impact on the seafloor/intertidal zone is expected, it is recommended that a dive/ intertidal survey is carried out accompanied by a metal detection survey. Both the dive survey and the metal detection survey shall be licenced under the National Monuments acts 1930-2014.</p>	<p>ESB have no objection to this condition, however for clarity confirm that all areas of the seabed where <i>intrusive</i> SI works will take place will be subject to a high-resolution geophysical survey (as advised by a suitably qualified and experienced archaeologist) in advance of works taking place with the results assessed by the archaeologist.</p>
<p>The results of all geotechnical works, including core samples and other geotechnical samples, shall be made available for assessment to the consultant archaeologist for review. Such assessment shall seek to identify any cultural material contained within the samples and evidence for palaeo-environments. A follow up Archaeological Report detailing the results of the assessment of geotechnical samples shall be forwarded to the National Monuments Service for review and consideration and to inform any future Foreshore/Planning application for the proposed offshore windfarm.</p>	<p>ESB have no objection to this condition and will ensure that all relevant geotechnical results will be made available for assessment to the consultant archaeologist for review.</p>
<p>Geophysical surveys of protected wreck sites outside the 12 mile limit should also be licenced under the National Monuments Acts 1930-2004.</p>	<p>ESB have no objection to this condition and will ensure all relevant licences will be sought.</p>

Observation 3: Commissioners of Irish Lights

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
Irish Lights notes from the application that there will be a number of Aids to Navigation (AtoN) deployed: wave buoys, Lidar buoys and the possibility of guard buoys for the acoustic monitoring equipment. Before any aid to navigation can be established, altered or disestablished consent in the form of Statutory Sanction under the Merchant Shipping Act must be obtained from the Commissioners of Irish Lights. The aid must be coloured and marked as per IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) standards. We note from document number QS-000307-01-R460-002 Site Investigation – Schedule of works that the word ‘amber’ is used. We would advise when applying for Statutory Sanction that this be replaced with ‘yellow’ as per the IALA guidelines.	ESB note CILs observations in relation to the aid colouring and will replace with ‘yellow’ as per the relevant guidelines.
The foreshore license sought is in Dublin Bay which is a high traffic density area and overlaps the Dublin Bay Traffic Separation Schemes (TSS). Irish Lights therefore advise consultation with local authorities and the Marine Survey Office (MSO).	ESB will liaise with the MSO and the relevant local authorities.
Irish Lights note under document number QS-000307-01-R460-002 Site Investigation – Schedule of works, section ‘3.3.4 Shipping and Navigation Infrastructure’ that a number of buoys and the Kish Lighthouse are located within the foreshore License area. We understand the ESB ‘will engage and consult with the Commissioner of Irish Lights and harbourmasters as appropriate prior to undertaking survey works to coordinate survey activities adjacent to these features and associated marine traffic.’ We request that Irish Lights is kept fully informed of any activities near navigational aids.	ESB can confirm that Irish Lights will be kept fully informed of any survey activities near navigational aids.
Irish Lights note that some aspects of the geophysical / hydrographic surveying may be undertaken using unmanned surface vehicles (USVs) and / or autonomous surface vehicles (ASVs). We therefore also advise consultation with local authorities and the MSO in relation to this as the use of unmanned surface vehicles (USVs) and/or autonomous surface vehicles (ASVs) can only be performed by licensed operators and Radio Navigational Warnings (RNWs) will need to be issued.	ESB will consult with local authorities, the Irish Coast Guard, and the MSO in relation to the use of (USVs) and/or autonomous surface vehicles (ASVs) as required.

Observation 4: Inland Fisheries Ireland

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
IFI would point out that the mitigation measures and guidance of NPWS in regard to marine mammals are not transferrable to fish species. The fish remain invisible to any shore- or boat-based observer. Mitigation measures should aim to reduce the sound generated, in intensity and duration. The use of soft-start and ramp-up procedures for any sound-generating surveys undertaken – both on a day-to-day basis and on re-start after any stoppages within any day should be undertaken. This measure should be a condition of the foreshore licence. The comments of IFI in this regard relate to fish species of conservation significance and of leisure angling significance all of which constitute part of IFI's brief.	ESB will employ the use of soft-start and ramp-up procedures for any sound-generating surveys undertaken – both on a day-to-day basis and on re-start after any stoppages within any day will be undertaken.
It is recommended to contact the Sea Fisheries Protection Agency (SFPA) to seek advice regarding the timing of survey works to avoid clashing with spawning periods of commercial fish in the area. This will reduce any potential for noise damage to larval and juvenile life stages of fish when they are more susceptible to noise damage than adults.	ESB will contact the SFPA to seek advice in relation to this point.
There is no mention of any diadromous species within the NIS document attached just a short section in the supplementary report in relation to the Annex II species and their respective SAC areas however the River Liffey is known to have European eel, Sea Lamprey, River Lamprey, Salmon and Sea trout. These species will be passing through the area of investigation and therefore there is a risk of them being affected. The timings of the work should be cognisant of the migratory window of diadromous species.	<p>ESB has assessed the implications of this project, both individually and in combination with other plans and projects, on the Qualifying Interest diadromous fish species associated with relevant SACs in the Supporting Information: Screening for Appropriate Assessment (SISAA) report accompanying the Foreshore Licence application, in support of the Competent Authority in making its determinations under the Appropriate Assessment process. The information presented in the SISAA concluded that the proposed works will have no Likely Significant Effect (LSE) on any SACs designated for diadromous fish.</p> <p>ESB is keen to discuss further with IFI the timings of the migratory windows of diadromous fish species as it is our understanding that the migratory windows of all of the diadromous species listed in the observation overlap across the full calendar year.</p> <p>Owing to the nature and scale of the proposed SI works combined with the implementation of soft-start and ramp-up procedures for any sound-generating surveys undertaken, the applicant considers the effects on all diadromous fish species occurring within the study area will be negligible.</p>

Observation 5: Marine Institute

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
The NIS submitted identifies a number of risks to conservation features (e.g., marine mammals) likely to result from the proposed activity. As mitigation, a number of actions are suggested that should reduce the risk. Foremost among these is the use of marine mammal observers (MMO) during operations including a 'soft start' protocol.	As per the application documents, ESB will employ the use of soft-start and ramp-up procedures for any sound-generating surveys undertaken and a qualified and experienced marine mammal observer (MMO) will be appointed to monitor for marine mammals.
The MI is satisfied that such measures will mitigate any risk to marine mammals in the immediate area during the site investigations. However, it is advised that DHLGH identify any similar geophysical/geotechnical surveys that might be carried out along the eastern seaboard and ensure that they not coincide with this survey. Furthermore, in light of the intensive nature of the methodologies proposed, it would be important that DHLGH consider the cumulative effects of these activities in light of the location and timing of similar activities along the East Coast and consider the likely longer term effects on marine mammals and biota, if any?	ESB has assessed the implications of this project, both individually and in combination with other plans and projects, against the conservation objectives of the European Sites referenced in the Natura Impact Statement (NIS) and SISAA and have concluded that following application of suitable mitigation measures this project will not adversely affect the integrity of the sites concerned.

Observation 6: Marine Advisor (Engineering)

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
<p>Coastal Processes The proposed site investigation works will have no impact on the existing coastal processes.</p> <p>Estate Management All foreshore is presumed state owned unless proven otherwise. In this case there are no known established claims of private ownership of the foreshore at this location. Subject to no claims of private ownership arising out of the application and public consultation process, the foreshore the subject of this application is state owned. Section 3 of the Foreshore Act applies for the proposed site investigation. The licence area for the proposed works is shown outlined on the following map submitted by the applicant: Map No: QS-000307-01-D460-002-001-001 Rev 01 Date 11/11/2021 and entitled 'Foreshore Licence Map'</p> <p>The proposed area of foreshore associated with the works is 30461.9Ha. The site investigation will have no permanent impact on other legitimate users or existing access arrangements. The applicant shall use that part of the foreshore, the subject matter of the application for the purposes as outlined in the application and for no other purposes whatsoever. Where relevant the foreshore and adjacent seashore area shall be restored to its natural state on completion of the works to the satisfaction of the Department of Housing, Local Government and Heritage.</p>	<p>As set out in the Accompanying report submitted with this Foreshore Licence application ESB confirm that the foreshore and adjacent seashore area shall be restored to presurvey conditions on completion of the works to the satisfaction of the Department of Housing, Local Government and Heritage.</p>
<p>Public Interest Section 2 and 3 of the 1933 Foreshore Act, as amended, states that a lease or licence of state foreshore may be granted "If, in the opinion of the Minister, it is in the public interest". As foreshore is a finite and valuable national resource and public amenity, it is important that each plan and project is fully assessed to ensure, that if consented to, it is a sustainable and proper use of that finite and valuable resource. Having considered and assessed the relevant issues associated with the proposed site investigation, while taking note that the stateowned foreshore is finite resource which must be utilised sustainably, I am satisfied that the proposed works are in the Public Interest.</p> <p>National Marine Planning Framework (NMPF) The NMPF is a national plan for Ireland's marine area including the Foreshore. It sets out, over a 20-year horizon, how we want to use, protect and enjoy our marine area. The NMPF sits at the top of the hierarchy of plans and sectoral policies for the marine area and provides a coherent framework in which those sectoral policies and objectives can be realised. All decisions on individual applications determined under the Foreshore Act, must secure and be consistent with the objectives of the plan, similar to the way that terrestrial plans form part of the decision-making tool-kit in the on-land planning process. NMPF objectives are supported by specific policies that articulate factors that can form part of objective consideration. Having reviewed and assessed the information on file for this application to conduct an ORE Site Investigation against the objectives of the NMPF, I am satisfied the proposed works do not act significantly against any objective within the NMPF. Furthermore, the project is aligned and secures key sectoral/activity objectives including Energy – Offshore Renewable (Policy 2). Accordingly, I am satisfied that the ORE Site Investigation is aligned with and secures the objectives set out in the NMPF.</p>	<p>ESB concurs that the project is aligned with the NMPF and secures key sectoral/activity objectives including Energy – Offshore Renewable (Policy 2).</p>
<p>Conclusion/Recommendation</p> <p>I have no objection to the granting of a Foreshore Licence subject to the following conditions:</p> <ol style="list-style-type: none"> 1. The Licensee shall use that part of the foreshore, the subject matter of this lease for the purposes as outlined in the application and for no other purposes whatsoever. 2. The works shall be located as outlined on Map No: QS-000307-01-D460-002-001-001 Rev 01 Date 11/11/2021 and entitled 'Foreshore Licence Map' 3. The Licensee shall notify the Department of Housing, Local Government and Heritage at least 14 days in advance of the commencement of any works on the foreshore. 	<p>ESB has no objection to these proposed conditions.</p>

<ol style="list-style-type: none"> 4. During the course of the works the Licensee shall ensure that existing public access arrangements are maintained, where possible, and all necessary precautions are put in place to protect the public in accordance with relevant Health and Safety Legislation. 5. On completion of the works, the surrounding foreshore shall be returned to its natural state to the satisfaction of the Department of Housing, Local Government and Heritage. 6. The Licensee shall submit, to the Department, the 'as deployed' location for all monitoring devices. 7. At the end of each phase and/or calendar year, the Licensee shall inform the Department of the work completed to date and the works planned for the coming year. 8. The Licensee shall ensure that contractors, and their subcontractors, are made aware of all conditions and project specific requirements and they are required to have briefings on these to ensure all parties are fully aware of these requirements. 	
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Observation 7: Dept of Agriculture Food and the Marine (Marine Engineering Division & Sea-Fisheries Protection Authority)

ESB notes the points raised in this observation. A response to comments is provided in the table below.

Observation Comments	ESB Response
This Department has received a response from the SFPA, who have no objections to this application.	ESB has no comments in relation to this point.
MED noted that there are increasing numbers of proposals for the Irish Sea and that as with those applications, appropriate monitoring and measures and best practice must be followed during the to ensure that the proposed survey works do not cause any direct or cumulative negative impacts on FHC access and navigation, environmental sites, aquaculture and fishery harbour operations. Appropriate liaison and planning must be undertaken to ensure that there is not conflict between the proposal as outlined and existing foreshore permissions and applications	ESB can confirm that they will comply with all licence conditions, and the mitigation measures/monitoring set out in this application. These measures include liaison with the appropriate parties.

Observation 8: An Bord Iascaigh Mhara (BIM)

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
<p>It is BIM's view that it is likely this this application (FW. 4.54) would have an impact on fisheries in the proposed location of the site investigations. As noted in the accompanying report to the application, there is a valuable whelk fishery, mainly in the area from the Kish/Bray bank down to the Codling Bank which is targeted by both Co. Wicklow based boats as well as from Co. Dublin. In addition, several vessels from Dun Laoghaire target crab and lobster in the proposed site investigation area, particularly around the Muglins east of Dalkey Island. Looking at the survey techniques to be employed fishers will in particular be concerned about Sub-Bottom Profiling (SBP) / Ultra High Resolution Seismic (UHRS), which they consider to have a negative impact in driving shellfish from the area and reducing substantially their catch rates. Also mentioned are various geophysical survey techniques including bore holes etc. that can have a similar impact.</p> <p>In summary the concerns of fishers comprise;</p> <ul style="list-style-type: none"> • Disruption to their fishing during the surveys • Displacement of fishing effort in areas not being fished on top of other fishers during the surveys that can be not just short term 	<p>It is ESB's intention to agree an approach for these SI activities with the relevant fishers and other marine users associated with the Sea Stacks Offshore Wind Project in advance of any such works. ESB is committed to working with individual fishers and with their representative Producer Organisations and Inshore Fisheries Forums with the objective of ensuring that survey activities can be completed safely and without damage to fishing gear, survey equipment or vessels. Additionally, ESB is developing a Fisheries Engagement and Coexistence Plan and has committed to sharing that with the Fish Producer Organisations for review, comment, and input with a view to having a Plan in place acceptable to both entities. It will outline how ESB plans to engage with commercial fishers about the Sea Stacks project throughout the project's lifecycle – from initial assessment, through construction, into operation. Fishers are key stakeholders in any offshore wind farm proposal and ESB is keen to ensure there are mutual benefits from the development of this project. Shared understanding will be essential in achieving this and in the minimisation of risk to both parties.</p> <p>An Offshore Wind Stakeholder Manager and a Fisheries Liaison Officer (FLO) have been appointed to support the Sea Stacks project. Both have been actively engaging with the fishing industry on a face-to-face basis and also in written correspondence. ESB intends to continue this engagement with the fishing community throughout the duration of the project. Commencement of survey activities is subject to Foreshore Licence consent and the availability of surveys vessels, equipment, and personnel. Once there is certainty on these factors our objective is to work with the fishing industry to develop and implement a survey programme which minimises the risk of any potential losses through effective planning and coordination of the survey activities.</p> <p>Potential impacts to whelk arising from the proposed survey work are considered to be negligible. While there is little information on the effect of noise on shellfish species, the absence of gas-filled cavities such as those possessed by marine mammals and some finfish, means that there is no mechanism for them to detect pressure changes associated with sound waves. Studies have however indicated that some shellfish species may be able to perceive noise through particle motion, including species such as whelks, mussels, crab and lobster (Wale, 2017;¹ Edmonds et al., 2016²; Myrberg, 2001³). Whelk do not possess any anatomical adaptations to perceive underwater noise in any way other than via particle motion, and there is no evidence to suggest that whelk are in any way sensitive to this impact. There are a number of ecological field studies which compare mortality on a range of invertebrates, including scallop, lobster and clam at sites where seismic survey has occurred which conclude that there is no evidence of increased mortality due to exposure to noise. (Parry et al., 2002⁴; Harrington et</p>

¹ Wale, M. (2017). The Effects of Anthropogenic Noise Playbacks on Marine Invertebrates. PhD Thesis. Edinburgh Napier University, 259 pp.

² Edmonds, N.J., Firmin, C., Goldsmith, D., Faulkner, R., Wood, D., (2016). A review of crustacean sensitivity to high amplitude underwater noise: Data needs for effective risk assessment in relation to UK commercial species. Marine Pollution Bulletin. 108, DOI: 10.1016/j.marpolbul.2016.05.006.

³ Myrberg, A. (2001). The Acoustical Biology of Elasmobranchs. Environmental Biology of Fishes. 60. 31-46. 10.1023/A:1007647021634.

⁴ Parry, G., Heislors, S., Werner, F., Asplin, D., Gason, H. (2002). Assessment of environmental effects of seismic testing on scallop fisheries in Bass Strait. Report number: 50. Affiliation: Marine and Freshwater Resources Institute.

	<p>al., 2010⁵ ; Payne et al., 2007⁶ ; Day et al., 2016⁷; La Bella et al., 1996⁸). In addition, studies of catch rate and abundance of shellfish species between sites where seismic activity has occurred and those where it has not, indicate no differences in catchability (Wardle et al., 2001⁹ ; Parry et al., 2002⁴; Christian et al., 2003¹⁰ ; Parry and Gason, 2006¹¹ ; Courtenay et al., 2009¹²). It should be noted that the surveys proposed as part of this Foreshore Licence application emit sound at a lower magnitude than the seismic surveys studied. The potential for adverse effect as a result of physical disturbance will be similarly limited, particularly when the resilience of this species is considered and that survey activity (such as benthic and geotechnical) impacts will be highly localised and occur over relatively small spatial and temporal scales.</p> <p>Even when considering cumulative effects associated with third party SI's the amount of sediment disturbed for redeposition would be negligible particularly when considering overall sediment transport within western areas of the Irish sea which has been calculated at up to 35% of sediments are mobilised per year¹³.</p> <p>A number of the proposed survey techniques are intrusive in nature, these include, boreholes, vibrocores, cone penetration tests (CPTs), ecological grab samples and buoy deployments. However the footprint of these activities is limited and in total results in a temporary disturbance of a maximum area of circa 0.011 hectares (ha) across the Foreshore Licence area (30,461 ha). Given the negligible volumes of sediments being extracted and practically zero spilt during sediment sample extraction there will be negligible impacts on shellfish from these activities particularly when natural sediment mobilisation and deposition would be of several magnitudes greater than the sediments disturbed from SI activities.</p> <p>As stated above Fishers are key stakeholders and ESB is keen to ensure there are mutual benefits from the development of this project. Shared understanding will be essential in achieving this and in the minimisation of risk to both parties.</p>
<p>Fear of the eventual outcome if the project goes ahead due to the impacts of the construction period and potential long-term exclusions from fishing areas during the operation of the windfarm.</p>	<p>This Foreshore licence application relates to proposed SI works only. These works are temporary and short term in nature. The ultimate project, the wind farm itself, will be the subject of a full consent application in due course and is outside the scope of this application. Specifically having regard to the request for appropriate environmental studies to be undertaken, the Foreshore Licence application was informed by environmental assessments, Risk Assessment for Annex IV species, SISAA and a NIS. This application will be subject to a comprehensive evaluation undertaken on behalf of the Minister and his Department and therefore is an independent assessment.</p>

⁵ Harrington, J.J., McAllister, J., Semmens, J.M., (2010). Assessing the Short-Term Impact of Seismic Surveys on Adult Commercial Scallops (*Pecten fumatus*) in Bass Strait. Tasmanian Aquaculture and Fisheries Institute, University of Tasmania.

⁶ Payne, J., Andrews, C., Fancey, L., Cook, A., Christian, J. (2007). Pilot Study on the Effects of Seismic Air Gun Noise on Lobster (*Homarus americanus*). Canadian Technical Report of Fisheries and Aquatic Sciences No. 2712.

⁷ Day, R.D., McCauley, R.D., Fitzgibbon, Q.P., Hartmann, K., Semmens, J.M. (2016). Assessing the impact of marine seismic surveys on southeast Australian scallop and lobster fisheries. Fisheries Research and Development Corporation, University of Tasmania, Hobart, FRDC 2012/008.

⁸ La Bella, G., Cannata, S., Frogia, C., Modica, A., Ratti, S., Rivas, G. (1996). First Assessment of Effects of Air-Gun Seismic Shooting on Marine Resources in the Central Adriatic Sea. 10.2523/35782-MS. Conference: SPE Health, Safety and Environment in Oil and Gas Exploration and Production Conference, pp227-238.

⁹ Wardle, C.S., Carter, T.J., Urquhart, G.G., Johnstone, A.D.F., Ziolkowski, A.M., Hampson, G., Mackie, D. (2001). Effects of seismic air guns on marine fish. Continental Shelf Research, Volume 21, Issues 8–10. pp1005-1027. ISSN 0278-4343. [https://doi.org/10.1016/S0278-4343\(00\)00122-9](https://doi.org/10.1016/S0278-4343(00)00122-9).

¹⁰ Christian, J.R., Buchanan, R.A., Mathieu, A., White, D., Thomson, D.H. (2003). Effect of seismic energy on snow crab (*Chionoecetes opilio*). Environmental Research Funds Report No. 144. Calgary. 106 p.

¹¹ Parry, G.D., Gason, A. (2006). The effect of seismic surveys on catch rates of rock lobsters in western Victoria, Australia. Fisheries Research, Volume 79. Issue 3, pp272-284. ISSN 0165-7836. <https://doi.org/10.1016/j.fishres.2006.03.023>.

¹² Courtenay, S., Boudreau, M., Lee, K. (2009). Potential Impacts of Seismic Energy on Snow Crab: An Update to the September 2004 Peer Review. Publisher: Environmental Studies Research Funds Report No. 178.

¹³ Coughlan, Mark & Guerrini, Marco & Creane, Shauna & O'shea, Michael & Ward, Sophie & Van Landeghem, Katrien J.J. & Murphy, Jimmy & Doherty, Paul. (2021). A new seabed mobility index for the Irish Sea: Modelling seabed shear stress and classifying sediment mobilisation to help predict erosion, deposition, and sediment distribution. Continental Shelf Research. 229. 104574. 10.1016/j.csr.2021.104574.

Observation 9: Marine Advisor (Environmental)

ESB notes the points raised in this observation. A response to the comments is provided in the table below.

Observation Comments	ESB Response
<p>The site investigation areas occurs within a number of European Sites namely, South Dublin Bay SAC [IE000210], North Dublin Bay SAC [IE000206], Rockabill to Dalkey SAC [IE003000], South Dublin Bay & River Tolka Estuary SPA [IE004024] and North Bull Island SPA [IE004006]. It also lies in close proximity to the Codling Fault Zone SAC [IE003015]. It should also be noted that Dublin Bay is also a UNESCO Biosphere Reserve. The Special Protection Areas within Dublin Bay support nationally and internationally important populations of a number of species with the Special Areas of Conservation supporting a variety of habitats to support these. Rockabill to Dalkey Island SAC is designated for the Annex II species Harbour Porpoise and the Annex I habitat Reefs, one of the few examples of this habitat on the east coast of Ireland. It should be noted that the site investigation area lies in close proximity to the Codling Fault Zone SAC [IE003015] which is the only site designated for the Annex I habitat Submarine structures made by leaking gases. This is a habitat which is extremely vulnerable to bottom contact gear.</p> <p>Assessment Process</p> <p>The Minister for Housing, Local Government and Heritage, is responsible for carrying out environmental screening and any environmental assessments determined as being required following screening, in accordance with the requirements set out in Directive 92/43/EEC (Habitats Directive) and Directive 2009/147/EC (Birds Directive), in respect of applications under the The Foreshore Act 1933, as amended.</p> <p>Habitats Directive</p> <p>The Appropriate Assessment process (AA) is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European Site (Natura 2000 site). The focus of AA is targeted specifically on Natura 2000 sites and their conservation objectives.</p> <p>Article 6(3) and 6(4) of the Habitats Directive place strict legal obligations on Member States to regulate the conditions under which development that has the potential to impact on European Sites can be proceed. It requires that an Appropriate Assessment be carried out of plans or projects, not directly connected with or necessary to the management of a site as a European Site, but which are projects. An AA Screening assessment is carried out to determine whether a plan or project is likely to have a significant effect on a European Site.</p> <ul style="list-style-type: none"> Article 6.3 states that: <i>“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”</i> Article 6.4 states: <i>“if, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.</i> <i>Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”</i> <p>In giving effect to the above as a matter of Irish law, the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended) (Birds and Natural Habitats Regulations) provide as follows:-</p> <p>Regulation 42(1) of the Birds and Natural Habitats Regulations states that: <i>“A screening for</i></p>	<p>A SISAA and NIS accompany this Foreshore Licence application in support of the Competent Authority in making its determinations under the Appropriate Assessment process.</p>

<p><i>Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site”.</i></p> <p>Regulation 42(2) provides that: “A public authority shall carry out screening for Appropriate Assessment under paragraph (1) before consenting for a plan or project is given, or a decision to undertake or adopt a plan or project is taken”.</p> <p>The Birds and Natural Habitats Regulations further provide as follows at Regulation 42 (6) and 42 (7):-</p> <p>6. <i>The public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.</i></p> <p>7. <i>The public authority shall determine that an Appropriate Assessment of a plan or project is not required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.</i></p> <p>Furthermore, under section 42A (13) of S.I. No. 293 of 2021 an Appropriate Assessment, including the specified public consultation, must be carried out before the public authority makes a decision to undertake or adopt the proposed plan or project.</p>	
<p>Risk Assessment for Annex IV Species</p> <p>Article 12 of the Habitats Directive (92/43/EEC) affords strict protection to species listed in Annex IV of the Directive wherever they occur. Outside of designated Natura 2000 sites, the waters around Ireland’s coast are a suitable habitat for a number of Annex IV species. Where necessary a Risk Assessment for adverse effects of the proposed works on these species must be undertaken and a report produced.</p> <p>The purpose of the Risk Assessment is to examine the possibility that the proposed project either individually or in combination with other plans and projects, may result in the deliberate disturbance or destruction of any of the species listed in Annex IV which may be present in the works area. The Risk Assessment should take into account the status (e.g. as indicated in the latest Article 17 reporting for Ireland, NPWS 2019) and sensitivities of relevant Annex IV species to potential impacts associated with the proposed project.</p> <p>The Risk Assessment for Annex IV Species should be precise, with definite findings, mitigation and conclusions removing all reasonable scientific doubt as to the effects of the proposed project on any Annex IV species. This assessment is separate to that undertaken under Article 6.3.</p>	<p>A Risk Assessment for Annex IV Species has been submitted with this Foreshore Licence application.</p>
<p>Independent Environmental Consultants (IEC)</p> <p>Owing to the scale and complexity of the environmental assessment required, and taking account of the available resources within the Department, I recommend that Foreshore Section of DHLGH engage a suitable qualified IEC. The IEC must conduct an independent assessment of the information provided by the Applicant, having regard to the Habitats Directive, the Birds Directive, the Birds and Natural Habitats Regulations, the EIA Directive, Non-statutory Environmental Reports and relevant jurisprudence of the EU and Irish courts.</p> <p>The IEC shall ensure that the Minister has all the environmental assessments required to allow them to make decisions on applications under The Foreshore Act 1933, as amended in accordance with the requirements set out in Directive 92/43/EEC (Habitats Directive), Directive 2009/147/EC (Birds Directive) and Directive 2011/92/EU, as amended by Directive 2014/52/EU (EIA Directive).</p> <p>Conclusion/Recommendation</p> <p>In principle I have no objections to this application.</p> <p>On completion of the Second Consultation and the work of the IEC, I will furnish my final report with determinations, which may include any case specific conditions will follow having regard to the information obtained during public participation.</p>	<p>ESB would urge the Foreshore Section to expediate the assessment process without any further delay as much time has now lapsed since the application was submitted.</p>