

# FS007261 Shelmalere Offshore Wind Farm - Site Investigations off Counties Wexford and Wicklow

## Prescribed Bodies Consultation

### Observations Received to date:

Marine Institute

Marine Survey Office

Marine Advisor Engineering

Marine Advisor Environment

Department of the Environment, Climate and Communications

Underwater Archaeology Unit FEMDAU

National Parks and Wildlife Service NPWS (DAU)

Inland Fisheries Ireland

Department of Agriculture Food and the Marine

Sea Fisheries Protection Authority 1

Sea Fisheries Protection Authority 2

Irish Lights

### No response received from the following Prescribed Bodies:

Wexford County Council

Wicklow County Council

**From:** [REDACTED]@Marine.ie>  
**Sent:** Monday 12 December 2022 15:57  
**To:** [REDACTED]@housing.gov.ie>  
**Cc:** Housing Foreshore <foreshore@housing.gov.ie>; Housing ForeShoreORE <foreshoreORE@housing.gov.ie>  
**Subject:** RE: FS007261 Shelmalere Offshore Wind Farm Ltd PBC AA Consultation

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Dear [REDACTED],  
Apologies for the delay responding.

In our previous submission (dated 16/11/2022), the Marine Institute advised that during assessment of likely effects, that the licencing body consider the in-combination effects on species (marine mammals and birds, in particular) that the proposed surveying activities may have with other similar activities likely to occur in the vicinity. We reiterate these views here. Furthermore, we would consider that wider effects on habitats (outside of licenced area) be also assessed. In particular, it is our view that such ORE data gathering surveys be carried out in a co-ordinated fashion in order to avoid redundancy of effort and minimise disturbance while also broadening the baseline of information on habitats and species. In addition, having this baseline data will facilitate future assessment of impacts of OREs beyond the footprint of the licence/lease area.

In relation to cumulative effects with other activities, we draw the Department's attention to fishery Natura assessments that have been carried out nationally and more specifically, in the Irish Sea. These reports can be found at the following link and give an indication of likely fisheries activities occurring in the area in question.

<http://www.fishingnet.ie/sea-fisheriesinnaturaareas/natura2000sitesundermanagement/>

Please do not hesitate to contact me if you have any queries.  
All the best

[REDACTED]

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[REDACTED] – *Licensing and Policy Advice*  
*Marine Environment and Food Safety Services*  
*Marine Institute*  
*Rinville, Oranmore*  
*Galway, Ireland*  
*H91R673*

*Landline: + 353 91 [REDACTED]; Mobile: +353 [REDACTED]*  
[www.marine.ie](http://www.marine.ie)

**From:** [REDACTED]@transport.gov.ie>  
**Sent:** Monday 14 November 2022 09:10  
**To:** [REDACTED]@housing.gov.ie>  
**Cc:** Foreshore <Foreshore@agriculture.gov.ie>  
**Subject:** FS007261 Shelmalere Offshore Wind Farm Ltd PBC AA Consultation

Good day [REDACTED],

It is noted that application FS007261 Shelmalere Offshore Wind Farm Ltd PBC AA Consultation was submitted 07/10/2021 and subsequent engagements with the MSO by many OREI interested stakeholders, including the operators of Shelmalere Project, have taken place. In these engagements the MSO has expressed minimum acceptable requirements to maintain safety of navigation in the development of OREI.

MSO has serious concerns to the safety of navigation by the risks posed by application FS007261 Shelmalere Offshore Wind Farm 'Site Investigation footprint, in particular the southern boundary. The Marine Survey Office has been consistent with it's message that all OREI applications / proposals which encroach within 5 nautical miles of Traffic Separation Schemes and the approaches to ports would not be supported.

The Shelmalere Offshore Windfarm Ltd as per attached chartlet which was submitted in the application

1. Southern boundary encroaches within 5 nm of the northern terminations of Tuskar Traffic Separation Scheme
2. Southern Boundary overlaps an extremely busy traffic route to and from Rosslare Harbour to the UK ports and European ports.

As per the attached the latitude of 52 degrees 20 minutes North (marked on chartlet) is the southern most boundary of the Site Investigation Area (or any subsequent proposed siting of Wind Farms and / or subsea cables or infrastructure) acceptable by MNSO on grounds of maintaining of safety of navigation.

Do not hesitate to contact me should you wish to discuss MSO concerns further.

**Regards,**

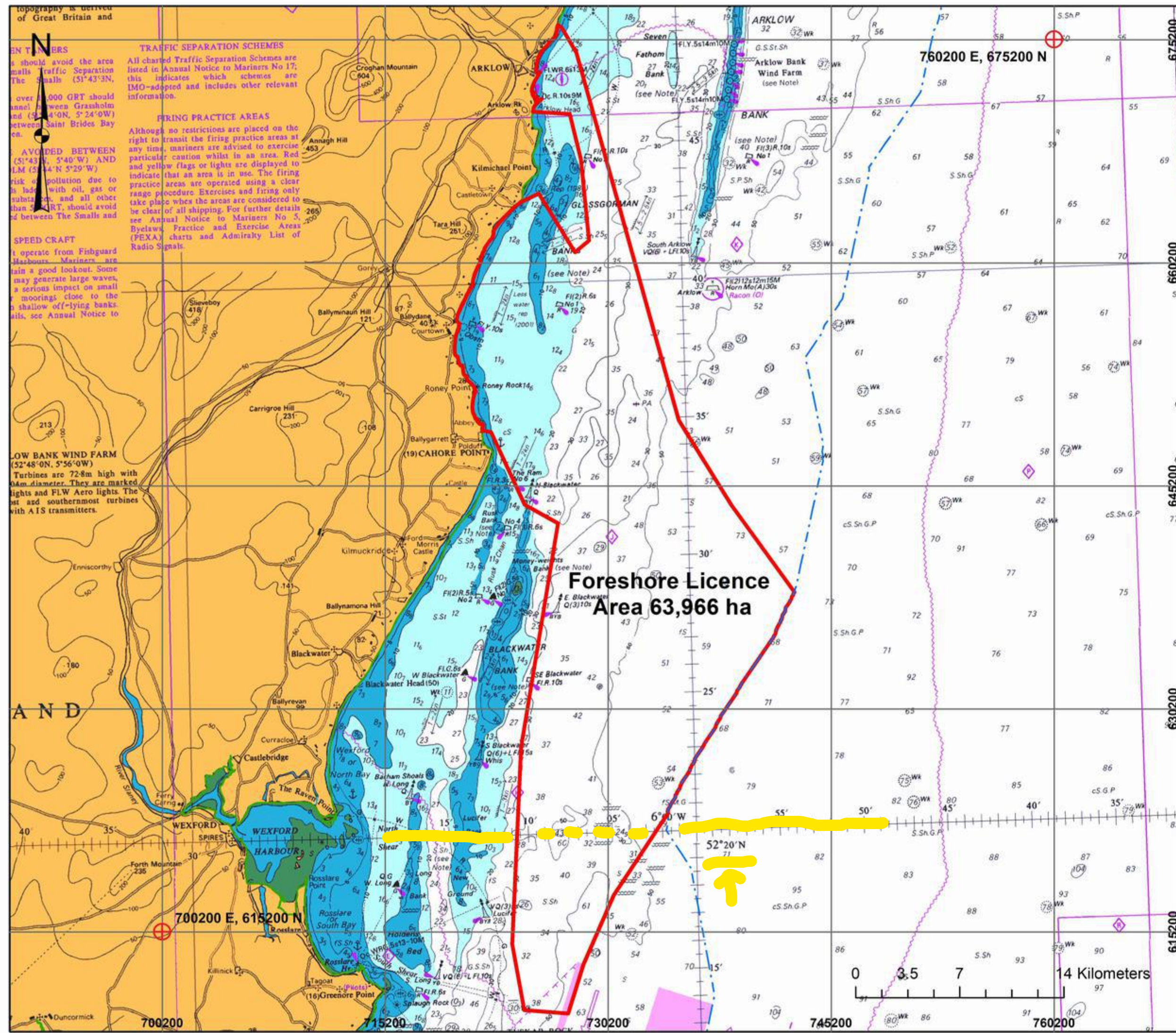
[REDACTED]  
*Marine Survey Office  
Nautical Surveyor*

**An Roinn Iompair**  
*Department of Transport*

**Lána Líosain, Baile Átha Cliath, D02 TR60**  
Leeson Lane, Dublin, D02 TR60

Office + 353 [REDACTED]  
Monile +353 [REDACTED]

[REDACTED]@transport.gov.ie  
[www.gov.ie/transport](http://www.gov.ie/transport)



topography is derived of Great Britain and

**TRAFFIC SEPARATION SCHEMES**  
 All charted Traffic Separation Schemes are listed in Annual Notice to Mariners No 17; this indicates which schemes are IMO-adopted and includes other relevant information.

**FIRING PRACTICE AREAS**  
 Although no restrictions are placed on the right to transit the firing practice areas at any time, mariners are advised to exercise particular caution whilst in an area. Red and yellow flags or lights are displayed to indicate that an area is in use. The firing practice areas are operated using a clear range procedure. Exercises and firing only take place when the areas are considered to be clear of all shipping. For further details see Annual Notice to Mariners No 5, Byelaws Practice and Exercise Areas (PEXA) charts and Admiralty List of Radio Signals.

**AVOIDED BETWEEN**  
 (51°43'N, 5°40'W) AND (51°44'N, 5°29'W)  
 risk of pollution due to discharge of oil, gas or substances, and all other than 500 GRT, should avoid of between The Smalls and

**SPEED CRAFT**  
 should operate from Fishguard Harbours. Mariners are advised to maintain a good lookout. Some may generate large waves, a serious impact on small moorings close to the shallows of (flying banks). For details, see Annual Notice to Mariners No 17.

**LOW BANK WIND FARM**  
 (52°48'0N, 5°56'0W)  
 Turbines are 72.8m high with 104m diameter. They are marked with lights and FLW Aero lights. The eastern and southernmost turbines have AIS transmitters.

# Foreshore Licence Map1

File Number: FS007261

## Shelmalere Offshore Wind Farm

- Legend**
- Foreshore Licence Application Area
  - Irish Territorial Sea 12nm Limit
  - High Water of Medium Tides

Ver	Date	Drawn by	Checked	Approved
V1	30/11/2020	█	█	█

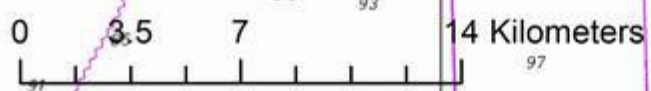
Coordinate System: IREN95 Irish Transverse Mercator  
 Size: A3

Scale 1:240,000 Printed @ A3

Filename: S004IE\_FIG\_ForeshoreLicenceApplicationMap1\_20201130

Map prepared by: █  
 MEngSc in Environmental Engineering, PGD in Sustainable Energy, HDGGIS  
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 Co. Cork, Ireland  
 www.dpenergy.com  
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**From:** [REDACTED]@housing.gov.ie>

**Sent:** Tuesday 13 December 2022 10:24

**To:** [REDACTED]@housing.gov.ie>

**Cc:** [REDACTED]@housing.gov.ie>; [REDACTED]

[REDACTED]@housing.gov.ie>

**Subject:** RE: Marine Advisors Report - Foreshore Licence: Site Investigations for Shelmalere Offshore Windfarm off Wicklow & Wexford Coasts FS007261

Hi [REDACTED],

Yes I can you confirm that I have no further obs on the AA.

Kind regards,

[REDACTED] **B.Eng. M.E.I.**

Marine Advisor/Inspector  
National & Regional Planning Policy,

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

Newtown Road, Carricklawn, Wexford, Y35 AP90

T: 053 [REDACTED]

M: 087 [REDACTED]

[REDACTED]@housing.gov.ie

[www.tithiocht.gov.ie](http://www.tithiocht.gov.ie)

[www.housing.gov.ie](http://www.housing.gov.ie)



[REDACTED]

Foreshore Unit,  
Department of the Housing, Local Government and Heritage,  
Newtown Road,  
Co. Wexford  
30<sup>th</sup> November 2022

### **Prescribed Bodies Second Consultation - Environmental Report**

**Re:** FS007261 Foreshore licence application for Site Investigations in the south-west Irish Sea

**Applicant:** Shelmalere Offshore Wind Farm Ltd.

Dear [REDACTED],

Your email of the 1<sup>st</sup> of November 2022 refers to this licence application to carry out a site investigation to determine the suitability of the Shelmalere Offshore Wind Farm Site off the coasts of counties Wicklow and Wexford for the development of an offshore wind farm.

This coastal and marine area of Ireland is of considerable ecological importance. The hydrographic conditions for the formation of sandbanks are limited around the Irish coast and the occurrence of this Annex I marine habitat are largely limited to the southwest of the island. Currents in this area are strong leading to the Annex I marine habitat Reefs having diverse communities with many of the species having a limited distribution elsewhere in Irish waters. There are many examples of Annex I coastal habitats in this area including two priority habitats.

This coastline is of immense ornithological importance as it provides feeding and roosting areas national and international bird species, particularly wintering species. It includes the Wexford Slobs which is the most important ornithological site in the country.

As you will note from the Marine Adviser's Screening Stage Environmental Report of the 16<sup>th</sup> of September 2022 the outcome of the IEC's review of the environmental reports associated with this application was agreed with and accepted.

As stated in my Prescribed Bodies Consultation of the 6<sup>th</sup> of December 2021 I have no objection to this application and on completion of the IEC's work on this second consultation I will provide my final report with determinations which may include site specific conditions having regard to the information obtained during public and Prescribed Bodies consultation.

[REDACTED]

[REDACTED]  
Marine Advisor, Environment.

**From:** Planning Notifications <[PlanningNotifications@DECC.gov.ie](mailto:PlanningNotifications@DECC.gov.ie)>  
**Sent:** Monday 28 November 2022 12:06  
**To:** Housing ForeShoreORE <[foreshoreORE@housing.gov.ie](mailto:foreshoreORE@housing.gov.ie)>  
**Subject:** Shelmalere Offshore Wind Farm Foreshore Licence Application

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To whom it may concern,

Please see attached a submission on behalf of Geological Survey Ireland (a division of the Department of the Environment, Climate and Communications) for the subject entity.

Please forward an acknowledgement of receipt to [PlanningNotifications@decc.gov.ie](mailto:PlanningNotifications@decc.gov.ie) at your earliest convenience.

Many thanks,

[REDACTED]

—

[REDACTED], **Administrative Officer**  
*Planning Advisory Division*

—

**An Roinn Comhshaoil, Aeráide agus Cumarsáide**  
*Department of the Environment, Climate and Communications*

**29-31 Bóthar Adelaide, Baile Átha Cliath, D02 X285**  
*29-31 Adelaide Road, Dublin 2, D02 X285*

—

[PlanningNotifications@decc.gov.ie](mailto:PlanningNotifications@decc.gov.ie)



Foreshore Unit  
Department of Housing, Local Government and Heritage  
Newtown Road  
Wexford  
Y35 AP90

23 November 2022

**Re: Foreshore Licence Application for Shelmalere Offshore Wind Farm**

**Your Ref: FS007261**

**Our Ref: 22/456**

Dear Sir/Madam,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and advice and gather various data for that purpose. Please see our [website](#) for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

With reference to your email received on the 08 November 2022, concerning the Foreshore Licence Application for Shelmalere Offshore Wind Farm, Geological Survey Ireland would encourage use of and reference to our datasets. Please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these datasets.

**Marine and Coastal Unit**

Our marine environment is hugely important to our bio-economy, transport, tourism and recreational sectors. It is also an important indicator of the health of our planet. Geological Survey Ireland's Marine and Coastal Unit in partnership with the Marine Institute, jointly manages [INFOMAR](#), Ireland's national marine mapping programme; providing key baseline data for Ireland's marine sector. The programme delivers a wide range of benefits to multi-sectoral end-users across the national blue economy with an emphasis on enabling our stakeholders.

Demonstrated applications for the use of INFOMAR's suite of mapping products include Shipping & Navigation, Fisheries Management, Aquaculture, Off-shore Renewable Energies, Marine Leisure & Tourism and Coastal Behaviour.

Of particular interest to tourism is the extensive database of shipwrecks mapped by the INFOMAR programme, many lost close to the coast and with engaging human interest stories associated with them

<https://www.infomar.ie/maps/story-maps/shipwrecks>.

INFOMAR also produces a wide variety of seabed mapping products that enable public and stakeholders to visualize Ireland's seafloor environment <https://www.infomar.ie/maps/downloadable-maps/maps>. [Story maps](#) have also been developed providing a different perspective of some of the bays and harbors of the Irish coastline. We would therefore recommend use of our Marine and Coastal Unit datasets available on our [website](#) and [Map Viewer](#).

The Marine and Coastal Unit also participated in coastal change projects such as [CHERISH](#) (Climate, Heritage and Environments of Reefs, Islands, and Headlands) and are undertaking mapping in areas such as coastal vulnerability and coastal erosion. Further information on these projects can be found [here](#).

**Coastal Vulnerability Index**

Geological Survey Ireland is undertaking a new coastal vulnerability mapping initiative. Maps produced by this project will provide an insight into the relative susceptibility of the Irish coast to adverse impacts of sea-level rise through the use of a Coastal Vulnerability Index (CVI). Currently the project is being carried out on the east coast and will be rolled out nationally, detailed information and maps are available [here](#). These index-based maps will offer a simple, easy visual representation of sensitive areas based on robust methods and conceptualised metrics from latest research, adapted to the Irish context. This will enable coastal managers to prioritize or concentrate efforts on adaptation.





## Geoheritage

Geological Survey Ireland is in partnership with the National Parks and Wildlife Service (NPWS, Department of Housing, Local Government and Heritage), to identify and select important geological and geomorphological sites throughout the country for designation as geological NHAs (Natural Heritage Areas). This is addressed by the Geoheritage Programme of Geological Survey Ireland, under 16 different geological themes, in which the minimum number of scientifically significant sites that best represent the theme are rigorously selected by a panel of theme experts.

County Geological Sites (CGSs), as adopted under the National Heritage Plan, include additional sites that may also be of national importance, but which were not selected as the very best examples for NHA designation. All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS. CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system. CGSs can be viewed online under the Geological Heritage tab on the online [Map Viewer](#).

**The audits for Co. Wicklow and Co. Wexford were completed in 2014 and 2018 respectively. The full report details can be found [here](#) and [here](#). Our records show that there are CGSs within the Foreshore Licence Area.**

**Ballymoney Strand**, Co. Wexford (GR 321361, 159674), under IGH theme: IGH4 Cambrian-Silurian. This coastal section of rocks is one of very few places where detailed structural geology and the relationships between different strata in the Ordovician rocks of Wexford can actually be seen in some detail. This is an important section for understanding the geology of Wexford and is likely to be recommended for NHA status when the Cambrian-Silurian theme is fully assessed. Link to Site Report: [WX002](#).

**Pollshone Head to Roney Point**, Co. Wexford (GR 320780, 152364), under IGH theme: IGH4 Cambrian-Silurian. The section exposes Lower Ordovician rocks of the Ribband Group, with some rocks of the Cambrian age Cahore Group included. They are mostly laminated slaty mudstones with siltstone bands, and some quartzites. This is a good representative site that merits County Geological Site status, and may be recommended for NHA designation when all Cambrian-Silurian sites are assessed in a national overview of the theme. Link to Site Report: [WX033](#).

With the current plan, there may be potential impacts on the integrity of current CGSs envisaged by the proposed development, should these sites not be assessed as constraints. Ideally, the sites should not be damaged or integrity impacted or reduced in any manner due to the proposed development. However, this is not always possible, and in this situation appropriate mitigation measures should be put in place to minimize or mitigate potential impacts. Where the integrity cannot be preserved we would ask that careful consideration be given in design to accommodating preservation of faces and access to the site during construction to record any new exposures to strengthen our knowledge and datasets and understanding of our geoheritage.

We would also ask that the design of any future development considers the use of information panels as appropriate to highlight the significance of the impacted CGS. Please contact Clare Glanville ([Clare.Glanville@gsi.ie](mailto:Clare.Glanville@gsi.ie)) for further information and possible mitigation measures if applicable.

## Groundwater

Geological Survey Ireland's [Groundwater and Geothermal Unit](#), provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems.

Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our [Map viewer](#) which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels ([gwlevel.ie](http://gwlevel.ie))). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data.



The Groundwater Data Viewer indicates several aquifers classed as a ‘Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones’, ‘Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones’, a ‘Regionally Important Aquifer - Fissured bedrock’ and a ‘Poor Aquifer - Bedrock which is Generally Unproductive’ underlie the coastal margins of the Foreshore Licence Area.

The Groundwater Vulnerability map indicates a range of groundwater vulnerabilities within the coastal margins of the Foreshore Licence Area. We would therefore recommend use of publicly available data on our Groundwater Viewer to identify areas of High to Extreme Vulnerability and ‘Rock at or near surface’ in your assessments, as any groundwater-surface water interactions that might occur would be greatest in these areas.

[GWClimate](#) is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWFlood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Maps and data are available on the [Map viewer](#).

Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.

The Groundwater Protection Response overview and link to the main reports is here: <https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx>

### **Geological Mapping**

Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found [here](#), in your future assessments.

### **Geohazards**

Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides, flooding and coastal erosion are the most prevalent of these hazards. We recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so.

Geological Survey Ireland has information available on landslides in Ireland via the National Landslide Database and Landslide Susceptibility Map both of which are available for viewing on our dedicated [Map Viewer](#). Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.

Coastal Vulnerability while seen as a potential geohazard, is discussed in more detail under our marine and coastal unit information above.

### **Other Comments**

Should development go ahead, all other factors considered, Geological Survey Ireland would much appreciate a copy of reports detailing any site investigations carried out. The data would be added to Geological Survey Ireland’s national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to the Geological Mapping Unit, at <mailto:GeologicalMappingInfo@gsi.ie>, 01-678 2795.



I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to contact me Clare Glanville, or my colleague Trish Smullen at [GSIPanning@gsi.ie](mailto:GSIPanning@gsi.ie).

Yours sincerely,



**Senior Geologist**  
**Geological Survey Ireland**



**Geoheritage and Planning Programme**  
**Geological Survey Ireland**

Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.

**Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes**  
following European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018  
(S.I. No. 296 of 2018)

Geological Survey Ireland Programme	Dataset	Relevant EIA Topic	Coverage	Description / Notes / Limitations	Link to Geological Survey Ireland map viewer
Geohazards	Landslide: National landslide database and landslide susceptibility map	Land & Soil/Climate/Landscape	National	Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c</a>
Geohazards	Groundwater Flooding (Historic)	Water	Regional	Provide information of historic flooding, both surface water and groundwater. [A lack of flooding presented in any specific location of the map only indicates that a flood has not been detected. It does not indicate that a flood cannot occur in that location at present or in the future]	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc</a>
Geohazards	Groundwater Flooding (Predictive)	Water	Regional	Provides information on the probability of future karst groundwater flooding (where available). [The maps do not, and are not intended to, constitute advice. Professional or specialist advice should be sought before taking, or refraining from, any action on the basis of the flood maps]	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc</a>
Geohazards	Radon Map	Land & Soils/Air	National		<a href="http://www.epa.ie/radiation/radonmap/">http://www.epa.ie/radiation/radonmap/</a>
Geoheritage	County Geological Sites as adopted by National Heritage Plan and listed in County Development Plans	Land & Soils/Landscape	Regional	All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS.	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0b2fbd2aaac3c228</a>
Geological Mapping	Bedrock geology:	Land & Soils	National	1:100,000 scale and associated memoirs.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Bedrock geology:	Land & Soils	Regional	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Quaternary geology: Sediments	Land & Soils	National	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Quaternary geology: Geomorphology	Land & Soils	National	1:50,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7e1b6ab8d58&amp;scale=0</a>
Geological Mapping	Physiographic units:	Land & Soils	National	Broad-scale physical landscape units mapped at 1:100,000 scale in order to be represented as a cartographic digital map at 1:250,000 scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420f54877843aca1bc075c62b</a>
Geological Mapping	GeoUrban: Spatial geological data for the greater Dublin and Cork areas	Land & Soils	Regional	Includes 3D models	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b794c16093beb2212a850ce6&amp;scale=0">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b794c16093beb2212a850ce6&amp;scale=0</a>
Geological Mapping	Geotechnical database	Land & Soils	National	Digitised geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a21718be1873d47a585a3f0415b4a724c">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a21718be1873d47a585a3f0415b4a724c</a>
Goldmine	Historical data sets including geological memoirs and 6" to 1 mile geological mapping records	Land & Soils/Water	National	available online	<a href="https://secure.dcca.gov.ie/goldmine/index.html">https://secure.dcca.gov.ie/goldmine/index.html</a>
Groundwater & Geothermal	Groundwater resources (aquifers)	Water	National	Data limited to 1:100,000 scale; sites should be investigated at local scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater recharge.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale; long term annual average recharge	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater vulnerability.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Group scheme and public supply source protection areas.	Water	National	Not all PWS / GWS have SPZ / ZOC. Check with IW / coco / NFGWS for private supplies.	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater Protection Schemes	Water	National	Data is limited to scale of 1:40,000. Data does not include all of the source protection areas	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Catchment and WFD management units.	Water	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	karst specific data layers	water	National	For areas underlain by limestone, includes karst features, tracer test database; turf/rough water levels (gwlevel.ie)	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Wells and Springs	Water	National	Not comprehensive, there may be unrecorded wells and springs	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef</a>
Groundwater & Geothermal	Groundwater body Descriptions	Water	National	Not exhaustive; only those in designated SACs; could be other GWDTEs; for more information contact NPWS / EPA / site investigations Also, Roadmap for a Policy and Regulatory Framework for Geothermal Energy, November 2020	<a href="https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx">https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx</a>
Groundwater & Geothermal	Geothermal Suitability maps	Land & Soils/Water	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9e46be08de41278b90a99116d0c0b9e">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9e46be08de41278b90a99116d0c0b9e</a>
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		<a href="https://secure.dcca.gov.ie/GSI/INFOMAR_VIEWER/">https://secure.dcca.gov.ie/GSI/INFOMAR_VIEWER/</a>
Marine & Coastal Unit	CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headlands)	Water	Regional		<a href="http://www.cherishproject.eu/en/">http://www.cherishproject.eu/en/</a>
Marine & Coastal Unit	Coastal Vulnerability Index (CVI).	water / Land & Soils	Regional	Currently the project is being carried out on the east coast and will be rolled out nationally	<a href="https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx">https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx</a>
Minerals	Aggregate potential	Land & Soils/Material Assets	National	Consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process	<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956</a>
Minerals	Active quarries	Land & Soils	National		<a href="https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956">https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956</a>
Minerals	Historic mines	Land & Soils/Cultural Heritage	National	Inventory and Risk Classification 2009. Environmental Protection Agency, Economic Minerals Division and Geological Survey Ireland (DECC).	<a href="https://gis.epa.ie/EPAMaps/default?zesting=7&amp;northing=7&amp;lid=EPA:LEMA_Facilities_Extractive_Facilities">https://gis.epa.ie/EPAMaps/default?zesting=7&amp;northing=7&amp;lid=EPA:LEMA_Facilities_Extractive_Facilities</a> <a href="https://www.epa.ie/enforcement/mines/">https://www.epa.ie/enforcement/mines/</a>
Tellus	Geochemical data: multi-element data for shallow soil, stream sediment and stream water	Land & Soils	Regional	A national mapping programme	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>
Tellus	Airborne geophysical data including radiometrics, electromagnetics and magnetics	Land & Soils	Regional	A national mapping programme	<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>
Tellus	urban geochemistry mapping (Dublin SURGE project).	Land & Soils	Regional		<a href="https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754">https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707f72754</a>

- Notes:  
**1. The maps and data listed above are available on the Geological Survey Ireland map viewer <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx>**  
**2. Please read all disclaimers carefully when using Geological Survey Ireland data**  
**3. Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.**

**From:** Housing Fem Dau <Fem.Dau@npws.gov.ie>  
**Sent:** Wednesday 30 November 2022 11:52  
**To:** [REDACTED]@housing.gov.ie>  
**Cc:** Housing Foreshore <foreshore@housing.gov.ie>  
**Subject:** RE: FS007261 Shelmalere Offshore Wind Farm Ltd PBC AA Consultation

Good morning [REDACTED]

The Department's Underwater Archaeology Unit have advised that their previous observations and recommendations for Foreshore Licence FS007261 still stand at this stage.

Obs have yet to be received from NPWS – I will forward them on if received by cob today.

*Regards*

[REDACTED]

[REDACTED]  
*Executive Officer*

—  
**Aonad na nIarratas ar Fhorbairt**  
*Development Applications Unit*  
**An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta**  
*Department of Housing, Local Government and Heritage*

**Oifigí an Rialtais**  
*Government Offices*

**Bóthar an Bhaile Nua, Loch Garman, Contae Loch Garman, Y35 AP90**  
*Newtown Road, Wexford, County Wexford, Y35 AP90*

—  
[www.tithiocht.gov.ie](http://www.tithiocht.gov.ie)  
[www.housing.gov.ie](http://www.housing.gov.ie)

**From:** Housing Fem Dau <Fem.Dau@npws.gov.ie>  
**Sent:** Friday 2 December 2022 10:21  
**To:** [REDACTED]@housing.gov.ie>  
**Subject:** RE: FS007261 Shelmalere Offshore Wind Farm Ltd PBC AA Consultation

Good morning [REDACTED]

NPWS have advised that their previous obs on this case still stand and no further obs required at this stage

Regards

[REDACTED]

[REDACTED]  
*Executive Officer*

—  
**Aonad na nIarratas ar Fhorbairt**  
*Development Applications Unit*  
**An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreachta**  
*Department of Housing, Local Government and Heritage*

**Oifigí an Rialtais**  
*Government Offices*

**Bóthar an Bhaile Nua, Loch Garman, Contae Loch Garman, Y35 AP90**  
*Newtown Road, Wexford, County Wexford, Y35 AP90*

—  
[www.tithiocht.gov.ie](http://www.tithiocht.gov.ie)  
[www.housing.gov.ie](http://www.housing.gov.ie)

**From:** [REDACTED]@fisheriesireland.ie>

**Sent:** Wednesday 14 December 2022 09:39

**To:** [REDACTED]@housing.gov.ie>; [REDACTED]  
[REDACTED]@housing.gov.ie>; [REDACTED]@housing.gov.ie>

**Subject:** RE: FS007261 Shelmalere Offshore Wind Farm Ltd PBC AA Consultation

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Hi [REDACTED]

We have no further comment to make on this application.

Kind regards

[REDACTED]

**From:** [REDACTED]@agriculture.gov.ie>  
**Sent:** Thursday 1 December 2022 16:16  
**To:** [REDACTED]@housing.gov.ie>  
**Cc:** Foreshore <Foreshore@agriculture.gov.ie>  
**Subject:** RE: FS007261 Shelmalere Offshore Wind Farm Ltd PBC AA Consultation

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**Our Ref: Site investigation licence for Shelmalere Offshore Windfarm Ltd  
off the Wexford and Wicklow coast  
DHLGH Ref: FS007261**

Dear [REDACTED],

I refer to your request for **further** comments/observations from this Department regarding this application.

Please note that this Department's Engineering Division had no further comments to make.

Please find attached the comments received from the SFPA.

Regards,

[REDACTED]  
Foreshore Section  
Dept of Agriculture Food and the Marine  
National Seafood Centre  
Clonakilty  
Co Cork  
Email: [REDACTED]@agriculture.gov.ie

## Aquaculture & Foreshore Application Observations

<b>Application No: FS007261</b>	<b>Applicant Name &amp; Area:</b>	
<b>Site Investigations application</b>	<b>Shelmalere Offshore Wind Farm Limited</b>	
<b>Application Category</b>		
Aquaculture: <b>N</b>		Foreshore: <b>Y</b>
Application Pre <b>N</b>	Application <b>Y</b>	Post Determination <b>N</b>

### Sea Fisheries Protection Officer Observations

1. *Possible impacts, if any, on existing wild fisheries in the area, with an emphasis on the possible implications for the SFPA conducting official controls and possible non-compliance issues that could arise.*

The applied area of foreshore amounts to approximately 298.3km<sup>2</sup> for the array and 341.4km<sup>2</sup> for the cable route. There are a number of wild fisheries within the applied area. Fisheries data is currently lacking at a high resolution within the ICES Sub Area VIIa. The applied area falls within the statistical rectangles 34E3 and 33E3 and although vessel catch data is collected for vessels over the 12m length, a large number of vessels less than 12m may operate in the applied area fishing both static and active fishing gear where catch data may not be collected and which would provide greater accuracy in location and fishing effort within the applied area. The main species in the under 12m vessel range is primarily crustacean and bivalve. It is currently unknown if the activities of site investigations using sound instruments in profiling the seabed have a negative effect on marine organisms and therefore it is unknown at this stage if spatial squeeze will occur with the under 12m fleet should a negative effect on fishing effort in the applied area.

At this stage it is unlikely that the SFPA will experience difficulties with non-compliance issues assuming that spatial squeeze with the under 12m fleet does not happen.

The applicant has engaged the services of a fisheries liaison officer, community and stakeholder manager and given assurances in their application that notices to mariners will be published.

2. *Impacts, if any, on shellfish growing areas adjacent to or within the area and the possible impact on the ability of the SFPA to conduct official controls and possible non-compliance issues that could arise.*

There are currently five areas within or adjacent to the applied area of foreshore. Wexford Harbour is both a classified shellfish production area for *Mytilus edulis* and a designated area under the shellfish (quality) growing waters. Two classified shellfish production areas, Rosslare and Curracloe where the target species is *Ensis siliqua*. The Blackwater and Glassgorman banks are fished on an annual basis for seed *M.edulis* to supply licenced aquaculture beds in Wexford Harbour, Carlingford Lough and Belfast Lough. A licenced aquaculture installation for the collection of *M.edulis* seed is located north of the applied foreshore area.

The proposed site investigations include 117 boreholes which in the cable investigation area are likely to be in the 20m depth range and the activity may cause an increase in the quantity of sediment in the shellfish harvested which may have an effect on the chemical quality of the flesh, Depending on the timing and duration of the proposed two stage investigations, measures may be needed to restrict access for dredge vessels to the area for the cable investigations as they can operate in depths of 15m.

With regards to the SFPA performing fishery control activities, it is unlikely that the site investigations will have a negative impact.





3. *Possible impacts, if any, on seafood safety.*

With any site investigations in or adjacent to classified shellfish production areas the risks of contamination of the shellfish which are destined for consumption comes from disturbance of the seabed from drilling boreholes and the possibility of a pollution incident from the investigation platforms (vessels and barges). Should a pollution incident occur during the investigations, the applicant must contact the SFPA Dunmore East and SFPA Howth Offices to limit the possibility of potentially contaminated shellfish being placed on the market. Contact details for both SFPA Offices are [sfpadunmore@sfpa.ie](mailto:sfpadunmore@sfpa.ie) and [sfpahowth@sfpa.ie](mailto:sfpahowth@sfpa.ie)

**Name:**  
**Sea Fisheries Protection Officer**

**Port:** Howth

**Date:** 30-11-2022

**Signature:** \_\_\_\_\_

**From:** [REDACTED]@gmail.com>  
**Sent:** Monday 5 December 2022 11:46  
**To:** [REDACTED]@housing.gov.ie>  
**Subject:** FS007261 Shelmalere Offshore Wind Farm

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Good morning [REDACTED],

Please find attached comments regarding the application for appropriate assessment and application for offshore wind farm along the Wicklow and Wexford coastline.

Kind regards,

[REDACTED]

## Aquaculture & Foreshore Application Observations

<b>Application No: FS007261</b>  <b>Site Investigations application</b>	<b>Applicant Name &amp; Area:</b> <b>Shelmalere Offshore Wind Farm Limited</b>
<b>Application Category</b>	
Aquaculture: <b>N</b>	Foreshore: <b>Y</b>
Application Pre <b>N</b>	Application <b>Y</b>
	Post Determination <b>N</b>

### Sea Fisheries Protection Officer Observations

1. *Possible impacts, if any, on existing wild fisheries in the area, with an emphasis on the possible implications for the SFPA conducting official controls and possible non-compliance issues that could arise.*

The applied area of foreshore amounts to approximately 298.3km<sup>2</sup> for the array and 341.4km<sup>2</sup> for the cable route. There are a number of wild fisheries within the applied area. Fisheries data is currently lacking at a high resolution within the ICES Sub Area VIIa. The applied area falls within the statistical rectangles 34E3 and 33E3 and although vessel catch data is collected for vessels over the 12m length, a large number of vessels less than 12m may operate in the applied area fishing both static and active fishing gear where catch data may not be collected and which would provide greater accuracy in location and fishing effort within the applied area. The main species in the under 12m vessel range is primarily crustacean and bivalve. It is currently unknown if the activities of site investigations using sound instruments in profiling the seabed have a negative effect on marine organisms and therefore it is unknown at this stage if spatial squeeze will occur with the under 12m fleet should a negative effect on fishing effort in the applied area.

At this stage it is unlikely that the SFPA will experience difficulties with non-compliance issues assuming that spatial squeeze with the under 12m fleet does not happen.

The applicant has engaged the services of a fisheries liaison officer, community and stakeholder manager and given assurances in their application that notices to mariners will be published.

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There are currently five areas within or adjacent to the applied area of foreshore. Wexford Harbour is both a classified shellfish production area for *Mytilus edulis* and a designated area under the shellfish (quality) growing waters. Two classified shellfish production areas, Rosslare and Curraclloe where the target species is *Ensis siliqua*. The Blackwater and Glassgorman banks are fished on an annual basis for seed *M.edulis* to supply licenced aquaculture beds in Wexford Harbour, Carlingford Lough and Belfast Lough. A licenced aquaculture installation for the collection of *M.edulis* seed is located north of the applied foreshore area.

The proposed site investigations include 117 boreholes which in the cable investigation area are likely to be in the 20m depth range and the activity may cause an increase in the quantity of sediment in the shellfish harvested which may have an effect on the chemical quality of the flesh, Depending on the timing and duration of the proposed two stage investigations, measures may be needed to restrict access for dredge vessels to the area for the cable investigations as they can operate in depths of 15m.

With regards to the SFPA performing fishery control activities, it is unlikely that the site investigations will have a negative impact.



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With any site investigations in or adjacent to classified shellfish production areas the risks of contamination of the shellfish which are destined for consumption comes from disturbance of the seabed from drilling boreholes and the possibility of a pollution incident from the investigation platforms (vessels and barges). Should a pollution incident occur during the investigations, the applicant must contact the SFPA Dunmore East and SFPA Howth Offices to limit the possibility of potentially contaminated shellfish being placed on the market. Contact details for both SFPA Offices are [sfpadunmore@sfpa.ie](mailto:sfpadunmore@sfpa.ie) and [sfpahowth@sfpa.ie](mailto:sfpahowth@sfpa.ie)

**Name:** [REDACTED]  
**Sea Fisheries Protection Officer**

**Port:** Howth

**Date:** 30-11-2022

**Signature:** \_\_\_\_\_



Commissioners of  
**IRISH LIGHTS** | Navigation  
and Maritime  
Services

**Commissioners of Irish Lights**  
Harbour Road, Dun Laoghaire  
Co. Dublin, Ireland

**T** +353.1.271.5400

**F** +353.1.271.5566

**E** [info@irishlights.ie](mailto:info@irishlights.ie)

**W** [www.irishlights.ie](http://www.irishlights.ie)

29 November 2022

Minister for Housing,  
Local Government and Heritage,  
Foreshore Section,  
Department of Housing,  
Local Government and Heritage,  
Newtown Road,  
Wexford,  
Y35 AP90

### **Consultation Foreshore application FS007261 Shelmalere Offshore Wind Farm**

To whom it may concern,

Thank you for contacting the Commissioners of Irish Lights requesting observations on this foreshore licence application FS007261, dated 1<sup>st</sup> November 2022.

Irish Lights notes from the application that there may be a number of Aids to Navigation (AtoN) deployed: Wave buoys, Lidar buoys and Acoustic Doppler Current Profilers. 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.

The foreshore license sought is located off Rosslare which is a high traffic density area. Irish Lights therefore advise consultation with local authorities and the Marine Survey Office (MSO), A Marine Notice should be published for the information of all local maritime users detailing the works and any vessels which may be engaged in Site Investigation works. Due to the large degree of commercial traffic in the vicinity of the proposed survey works, the need to increase the conspicuity of any buoys deployed is advised.

Within the proposed Investigative Foreshore Licence Application area there are a number of Aids to Navigation. Commissioners of Irish Lights request mariners navigating around the coast of Ireland to exercise the greatest care to avoid damage to Aids to Navigation. Mariners should give all Aids to Navigation a wide berth, paying particular attention to the strength of wind and tide.

If you have any queries please do not hesitate to contact myself or a member of the team.

Yours sincerely,



**Acting Navigation Services Manager**

**From:** [REDACTED]  
**Sent:** Thursday 22 December 2022 15:27  
**To:** [REDACTED]  
**Cc:** Foreshore <Foreshore@agriculture.gov.ie>; Housing Foreshore <foreshore@housing.gov.ie>  
**Subject:** FW: Our Ref: Site investigation licence for Shelmalere Offshore Windfarm Ltd off the Wexford and Wicklow coast

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Dear [REDACTED],

I refer to your requested for comments from this Department in relation to this application for Shelmalere Offshosre Windfarm Ltd.

Please note MED has no further comments to make on this application.

However, please see attached and email below received from BIM and the SFPA that should be taken into consideration by your Department.

Regards,

[REDACTED]  
Foreshore Section  
Dept of Agriculture Food and the Marine  
Email: [REDACTED]

**From:** Foreshore Licensing <[foreshore.licensing@bim.ie](mailto:foreshore.licensing@bim.ie)>

**Sent:** 22 December 2022 11:03

**To:** [REDACTED]

**Cc:** Foreshore <[Foreshore@agriculture.gov.ie](mailto:Foreshore@agriculture.gov.ie)>; [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**Subject:** RE: Our Ref: Site investigation licence for Shelmalere Offshore Windfarm Ltd off the Wexford and Wicklow coast

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Dear [REDACTED],

“BIM has one comment/observation to make in regard to the Appropriate Assessment required for application F.W.6.24, DHLGH Ref: FS007261 for site investigation works for Shelmalere Offshore Windfarm Ltd off the Wexford and Wicklow coast.

As there are fisheries subject to a Fisheries Natura Plan (Fisheries Natura Plan for mussel seed (*Mytilus edulis*) in the Irish Sea 2018-2023) in the area of the proposed site investigation works and aquaculture activities subjected to Appropriate Assessment (Wexford Harbour- see attached) near the proposed site investigation works an appropriate assessment for this application would need to take into account any “in combination effect” that the proposed site investigation works would have on Natura 2000 sites covered by the area of this application.”

Kind regards,

■



**Appropriate Assessment Conclusion Statement (Updated) by Licensing Authority for aquaculture activities in:**  
**Slaney River Valley SAC (Site Code: 000781)**  
**Raven Point Nature Reserve SAC (Site Code: 000710)**  
**Wexford Harbour and Slobs SPA (Site Code: 004076) and**  
**Raven SPA (Site Code: 004019) - (Natura 2000 sites)**

This Conclusion Statement outlines how it is proposed to licence and manage aquaculture activities in the above Natura sites in compliance with the EU Birds and Habitats Directives. Aquaculture will be licensed in accordance with the standard licence terms and conditions as set out in the aquaculture licence templates.

These are available for inspection at:

[www.agriculture.gov.ie/seafood/aquacultureforeshoremanagement/aquaculturelicensing/](http://www.agriculture.gov.ie/seafood/aquacultureforeshoremanagement/aquaculturelicensing/)

Furthermore, the licences will also incorporate specific conditions to accommodate Natura requirements, as appropriate, in accordance with the principles set out in this document.

An Appropriate Assessment report for aquaculture activities, under Article 6 (3) of the EU Habitats Directive, has been carried out in the above ‘Natura 2000’ sites by the Marine Institute on behalf of the Department of Agriculture, Food and the Marine. This Appropriate Assessment assessed the potential ecological impacts of aquaculture activities on the qualifying interests of Natura sites in *and adjacent to* Wexford Harbour. Both the Special Areas of Conservation (SACs) and Special Protection Areas for birds (SPAs) were assessed. From an aquaculture perspective, the information upon which the Appropriate Assessment is based is the definitive list of applications and extant licences for aquaculture available at the time of assessment.

A number of other adjacent SACs and SPAs, located within 15 km of Wexford Harbour, were also considered, namely:-

Carnsore Point SAC (site code 002269), Long Bank SAC (site code 002161), Screen Hills SAC (site code 000708), Blackwater Bank SAC (site code 002953), Cahore Marshes SPA (site code 004143), Lady’s Island Lake SPA (site code 004009), the Saltee Islands SPA (site code 004002) and Tacumshin Lake SPA (site code 004092).

**Appropriate Assessment**

The function of the Appropriate Assessment is to determine if the ongoing and proposed aquaculture activities are consistent with the Conservation Objectives for these sites; and in the case of SPAs also those neighbouring sites where there is the potential usage of aquaculture areas by birds for which these SPAs have been designated. NPWS provide guidance on interpretation of the Conservation Objectives which are, in effect, management targets for habitats and species in the sites. The assessment of activities was informed by this guidance, which is scaled relative to the anticipated sensitivity of the habitats and species to disturbance by the proposed activities.

## **Description of aquaculture activities**

The main aquaculture activity within the SACs (and vicinity) is the bottom culture of mussels, as well as a small number of applications to carry out intertidal oyster culture and subtidal suspended mussel culture. Spatial extents of existing and proposed activities within the qualifying interests (Mudflats and sandflats not covered by sea water at low tide (1140) and Estuaries (1130)) within the two SACs were calculated using coordinates of activity areas in Geographic Information System (GIS).

## **THE SACs AND SPAS**

### **Slaney River Valley SAC**

Slaney River Valley SAC is a large site comprising extensive terrestrial, freshwater, estuarine and marine features. In addition, six aquatic species as well as two mammal species are designated within the site. The marine areas are designated for Annex 1 habitats, Estuaries [1130] and for Intertidal mud and sand flats not covered by seawater at low tide [1140]. The area supports a variety of sub-tidal and intertidal sedimentary community types, including those that are sensitive to aquaculture related pressures (e.g. dredging in bottom shellfish culture). The area is also designated for and supports significant numbers of Harbour Seal and Otter while Salmon and Sea Lamprey and Twaite Shad, migrate through the harbour as smolts and as mature animals returning from sea.

### **Conservation objectives - Slaney River Valley SAC**

The Conservation Objectives were identified by NPWS (2011a, c) and NPWS guidance on these objectives was provided (2011b, d). The objectives relate to the requirement to maintain habitat distribution, structure and function, as defined by characterizing (dominant) species in these habitats. For designated species the objective is to maintain various attributes of the populations, including population size, cohort structure and the distribution of the species in the Harbour.

### **Qualifying interests of Slaney River Valley SAC**

The SAC is designated for the following habitats and species (NPWS 2011a), as listed in Annex I and II of the Habitats Directive:

- 1029 Freshwater Pearl Mussel *Margaritifera margaritifera*;
- 1095 Sea Lamprey *Petromyzon marinus*; 1096 Brook Lamprey *Lampetra planeri*;
- 1099 River Lamprey *Lampetra fluviatilis*;
- 1103 Twaite Shad *Alosa fallax*;
- 1106 Atlantic Salmon *Salmo salar* (only in fresh water);
- 1130 Estuaries;
- 1140 Mudflats and sandflats not covered by seawater at low tide;

- 1355 Otter *Lutra lutra*;
- 1365 Harbour Seal *Phoca vitulina*;
- 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (Floating river vegetation);
- 91A0 Old sessile oak woods with *Ilex* and *Blechnum*;
- 91E0 \* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*).

Three constituent community complexes recorded within the qualifying interests of Estuaries (1130) and Mudflats and sandflats not covered by seawater at low tide (1140) are listed below (NPWS 2011a (version 1)):

- Mixed sediment community complex
- Estuarine muds dominated by polychaetes and crustaceans community complex
- Sand dominated by polychaetes community complex.

An additional community complex ‘fine sand with *Spiophanes bombyx* community complex’ is described for subtidal elements outside of the Estuaries habitat.

#### **AA Screening – Slaney River Valley SAC**

None of the aquaculture activities (existing or proposed) overlaps or likely interacts with the following features or species, given their exclusive freshwater nature, and therefore these three habitats and three taxa are excluded from further consideration in the assessment:

- 1029 Freshwater Pearl Mussel *Margaritifera margaritifera*;
- 1096 Brook Lamprey *Lampetra planeri*;
- 1099 River Lamprey *Lampetra fluviatilis*;
- 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation (Floating river vegetation);
- 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles;
- 91E0 \* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*).

The **Atlantic salmon** (*Salmo salar*) migrates through outer Wexford harbour into the Slaney River Valley SAC. Given the nature of the activities proposed for aquaculture in Slaney River Valley, The AA indicated that it is unlikely that aquaculture activities will impact on the conservation attributes for Salmon.

The **Sea lamprey** (*Petromyzon marinus*) and the **Twaite shad** (*Alosa fallax*) migrate through outer Wexford Harbour into the Slaney River Valley SAC. The aquaculture activities do not present a barrier to migration of these species, given they are confined to on-bottom subtidal areas and any structures used (oyster trestles) will be deployed in intertidal areas away from channels. The AA report concludes that the aquaculture activities carried out or proposed for the Slaney River Valley SAC are unlikely to impact upon the other attributes for Sea lamprey and Twaite Shad, which are primarily freshwater in nature.

### **Raven Point Nature Reserve SAC**

Ravens Point Nature Reserve SAC is a small reserve site adjacent to the Slaney River Valley SAC, comprising coastal and marine features.

The conservation objectives for the qualifying interests were identified by NPWS (2011c) and NPWS (2011d), respectively. The natural condition of the designated features should be preserved with respect to their area, distribution, extent and community distribution. Human disturbance should not adversely affect such habitats.

The SAC is designated for the following habitats:

- 1140 Mudflats and sandflats not covered by seawater at low tide;
- 1210 Annual vegetation of drift lines;
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*);
- 2110 Embryonic shifting dunes;
- 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes');
- 2130 \*Fixed coastal dunes with herbaceous vegetation ('grey dunes');
- 2170 Dunes with *Salix repens ssp. argentea* (*Salicion arenariae*);
- 2190 Humid dune slacks

**AA Screening** – The AA report screened out 7 habitats from further consideration on the basis that none of the aquaculture activities (existing or proposed) overlapped (1210 Annual vegetation of drift lines; 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), 2110 Embryonic shifting dunes; 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes'); 2130 \*Fixed coastal dunes with herbaceous vegetation ('grey dunes'); 2170 Dunes with *Salix repens ssp. argentea* (*Salicion arenariae*); 2190 Humid dune slacks).

The remaining habitat, i.e. 1140 Mudflats and sandflats not covered by seawater at low tide was fully considered. There are four constituent community complexes recorded within this qualifying interest:

- Mixed sediment community complex
- Estuarine muds dominated by polychaetes and crustaceans community complex

- Fine sand with *Spiophanes bombyx* community complex
- Sand dominated by polychaetes community complex

There are a number of applications for the culture/collection of wild mussel seed on longlines and rafts that might occur outside of the boundaries but are proximate to Raven Point Nature Reserve SAC (and also to Slaney River Valley SAC). These applications are deemed to be non-disturbing to the conservation features of the SAC on the basis of:

- There is no spatial overlap with the SACs
- Any impact on the seabed is likely to be confined to the footprint of the licensed area and is unlikely to impact on features or ecological functions within the SACs
- The hydrology regime at the sites is such that any dissolved nutrients will be quickly dispersed from the site and will unlikely enter into the estuary
- On the basis of published literature, the structures and activities associated with this culture operation are unlikely to impact negatively on Annex II species, harbour seal and otter

Consequently, these mussel seed capture sites were screened out from full assessment.

### **Screening of Adjacent SACs**

In addition to the two SACs under consideration, there are a number of other Natura 2000 sites proximate to the proposed activities. A preliminary screening was carried out on the likely interaction with aquaculture and fishery activities based primarily upon the likelihood of spatial overlap or other interactions (*ex-situ* effects). This assessment found no spatial overlap of aquaculture activities on the SACs.

### **Annex I assessment carried out in relation to the SACs**

A full assessment was carried out on the likely interactions between aquaculture operations (as proposed) and the features Annex 1 habitats Mudflats and sandflats not covered by seawater at low tide (1140) and Estuaries (1130) in the Slaney River Valley SAC (0781) and Mudflats and sandflats not covered by seawater at low tide (1140) in Raven Point Nature Reserve SAC (0710). The likely effects of the aquaculture activities were considered in light of the sensitivity of the constituent communities of these Annex I habitats.

The habitats feature Mudflats and sandflats not covered by seawater at low tide (1140) is primarily based on Ordnance Survey Ireland (OSI) mapping which appears to underestimate the extent of this habitat type as indicated by direct observations or other mapping e.g. the Geological Survey of Ireland (GSI) method (i.e. mapping of intertidal habitat based on satellite-derived bathymetry data covering the entire harbour zone). The majority of intertidal habitat (1140) occurs in the outer part of the harbour (where the quality of the GSI data is considered reliable) and the activities primarily interacting with intertidal habitat are in the southern and eastern part of the harbour.

The extent of intertidal habitat mapped by the GSI method is estimated at approximately 1,400 ha, as opposed to 1,027 ha, calculated from the OSI maps and presented with the Conservation Objectives (NPWS 2011).

Based upon spatial extent presented in the Conservation Objectives the level of spatial overlap between aquaculture (licensed and applications) activities and 'Mudflats and Sandflats not covered by sea water at low tide' is 608ha, which represent 59.2% of this Annex I habitat feature within the Slaney River Valley SAC; between aquaculture (licensed and applications) activities and 'Estuaries' is, approximately, 990 ha which is equivalent to 52% of the feature within this SAC. Similarly, high spatial coverage was calculated between aquaculture activities and marine community types described for both Annex 1 habitats.

Within the Raven Point Nature Reserve SAC, the level of spatial overlap between aquaculture activities (active and proposed) and 'Mudflats and Sandflats not covered by sea water at low tide' is 2.6 ha, which represent 3.6% of this Annex I habitat feature within the SAC.

### **Wexford Harbour Slob and, Raven SPAs**

The Special Conservation Interests of the Wexford Harbour and Slob SPA are: -

- non-breeding populations of: Bewick's Swan, Whooper Swan, Greenland White-fronted Goose, Light-bellied Brent Goose, Shelduck, Wigeon, Teal, Mallard, Pintail, Scaup, Goldeneye, Red-breasted Merganser, Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Coot, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull and Lesser Black-backed Gull;
- a breeding population of Little Tern;
- a post breeding/roosting population of Hen Harrier and
- a wetland habitat within the Wexford Harbour and Slob SPA.

The Hen Harrier has been screened out for further assessment as there is no potential for significant overlap between it and the aquaculture activities. In addition the wetland habitat within the Raven SPA is listed as an SCI. The AA found that none of the activities being assessed will cause any change in the permanent area occupied by wetland habitat in either Wexford Harbour and Slob SPA or the Raven SPA.

The Special Conservation Interests of the Raven SPA are wintering populations of: Greenland White-fronted Goose, Red-throated Diver, Cormorant, Common Scoter, Grey Plover and Sanderling.

### **Other sites**

#### **Cahore Marshes SPA (004143)**

The SCIs of the Cahore Marshes SPA are wintering populations of: Greenland White-fronted Goose, Wigeon, Golden Plover and Lapwing. In addition the wetland habitat within the Cahore Marshes SPA is listed as an SCI. All of the waterbird SCIs of Cahore Marshes SPA are also SCIs of the Wexford Harbour & Slob SPA and/or

the Raven SPA. Some of the Greenland White-fronted Goose using the Cahore Marshes SPA are known to commute to Wexford Harbour and the Raven to roost each night (NPWS). Wigeon, Golden Plover and Lapwing are species that can have very mobile populations in winter. Therefore, all these SCIs were screened in for full assessment.

#### **Lady's Island Lake SPA (004009)**

The SCIs of the area of Lady's Island Lake SPA are wintering population of Gadwall and breeding populations of Black-headed Gull, Sandwich Tern, Roseate Tern, Common Tern and Arctic Tern. In addition the wetland habitat within the Lady's Island Lake SPA is listed as an SCI. The Wetland habitats within Lady's Island Lake SPA will not be impacted. Wexford Harbour and the Raven does not regularly support significant numbers of Gadwall; this SCI was screened out.

As the potential that Black-headed Gull, Sandwich Tern, Roseate Tern, Common Tern and Arctic Tern forage within Wexford Harbour during either the breeding season and / or period of post-fledging dispersal could not be discounted, the AA included these for full assessment.

#### **Saltee Islands SPA (004002)**

The SCIs of the Saltee Islands SPA are breeding populations of Fulmar, Gannet, Cormorant, Shag, Lesser Black-backed Gull, Herring Gull, Kittiwake, Guillemot, Razorbill and Puffin. Based on consultation with NPWS, and consideration of their breeding / foraging ecology, the only SCIs from the Saltee Islands SPA where there was considered to be potential for significant interchange with Wexford Harbour and the Raven are the Cormorant and Shag breeding populations; all other species forage offshore and were screened out.

#### **Tacumshin Lake SPA (004092)**

The SCIs of the Tacumshin Lake SPA include wintering populations of: Bewick's Swan, Whooper Swan, Wigeon, Gadwall, Teal, Pintail, Shoveler, Tufted Duck, Little Grebe, Coot, Golden Plover, Grey Plover, Lapwing and Black-tailed Godwit. The SCIs also includes post breeding/roosting Hen Harrier. In addition the wetland habitat within the Tacumshin Lake SPA is listed as an SCI.

Most of the waterbird SCIs of Tacumshin Lake SPA are also SCIs of the Wexford Harbour & Slobbs SPA and/or the Raven SPA; due to the potential for interchange between sites these were fully assessed in the AA. The waterbird SCIs of Tacumshin Lake SPA that are not also SCIs of the Wexford Harbour & Slobbs SPA and/or the Raven SPA are: Gadwall, Shoveler and Tufted Duck.

Gadwall and Shoveler do not regularly occur in Wexford Harbour and the Raven and were screened out. Tufted Duck regularly occur in significant numbers at Wexford Harbour and the Raven and were fully assessed.

There is no potential for significant spatial overlap of the Hen Harrier populations with the aquaculture activities included in the AA.

Aquaculture activities in Wexford Harbour and the Raven will clearly not have any impact on wetland habitat in Tacumshin Lake.

Other SPAs in the wider environs were also considered and screened out.

## **Annex II Species interactions with Aquaculture**

The likely interactions between the proposed aquaculture activities and the Annex II Species Harbour Seal (*Phoca vitulina*) and Otter (*Lutra lutra*) were assessed.

### **HARBOUR SEAL**

It was acknowledged in the appropriate assessment that the favourable conservation status of the Harbour seal (*Phoca vitulina*) has been achieved given current levels of aquaculture production within the SAC. The aspect of the culture activities that could potentially disturb the Harbour seal status relates to movement of people and vessels within the sites as well as accessing the sites over intertidal areas and via water.

The current levels of aquaculture production are considered non-disturbing to harbour seal conservation features in all areas of the SAC. It is important to note that area covered by the (subtidal) bottom mussel culture activities would appear to be considerably smaller than those represented by licensed areas, which extend into the intertidal areas. If actual production were to occur over or close to the seal haul-out areas then a risk of disturbance to seal cannot be discounted.

In relation to new licence applications, similar to licensed areas, there is considerable overlap with seal haul out locations and a number of new applications. If actual culture activities were to extend to intertidal / shallower areas proximate to the seal sites then this would present a risk to seals.

On the basis of distance from the seal haul out locations, the proposed oyster trestle culture sites are considered non-disturbing to seal conservation features.

### **Otter (*Lutra lutra*)**

The Slaney River Valley SAC is designated for the Otter. The likely interactions between the proposed aquaculture activities and the Annex II Species, Otter were assessed.

The conservation objectives can be found in detail in NPWS (2013a). The otter is known to forage within an 80m of the shoreline. According to NPWS (2013) the overall conservation assessment is “good” for otter. Given the crepuscular nature of otter activity, likely interactions (and disturbance) with operators on the foreshore are considered low. Furthermore, shellfish culture (intertidal and suspended) is not considered a threat to otters. In the threat response plan NPWS (2009) state “Little evidence has come to light in recent studies to suggest that disturbance by recreation is a significant pressure”.

The current and proposed levels of aquaculture are considered non-disturbing to otter conservation features in all areas of the Slaney River SAC.

### **Aquaculture and Fisheries interactions with SPA features**

The following are potential impacts where the available evidence indicates a high likelihood of significant impacts occurring.



### **Bottom mussel culture impact on Red-breasted Merganser**

Disturbance from bottom mussel-related boat activity may cause significant displacement impacts to Red-breasted Merganser. The mean area potentially disturbed could amount to around 19-27% of the total area of available habitat. High levels of impact could occur on around 80% of days in the October-December period, for periods of up to 55-66% of daylight hours. The population-level consequences of the displacement impact will depend upon whether the displaced birds can find suitable alternative habitat to feed in while they are displaced, or, if this is not the case, whether the undisturbed portion of the day provides sufficient feeding time for the birds to meet their daily energetic requirements. It should also be noted that the Merganser are likely to be there due to the presence of mussels (provision of habitat heterogeneity and therefore, increased fish abundance) and the level of disturbance from mussel vessels is unlikely to increase as the spatial extent of licensed mussel areas are likely to remain static or decrease.

### **Bottom mussel culture impact on Little Tern**

There is potential for significant disturbance impacts to the Little Tern breeding colony. However, these can be avoided through an appropriate adaptive management strategy (see below).

### **Other potential impacts**

The following are potential impacts where the available evidence is not sufficient to rule out significant impacts beyond reasonable scientific doubt. However, this does not mean that all these impacts are considered to be very likely to occur.

### **Bottom mussel culture impact on Greenland White-fronted Goose**

Concerns were highlighted in the Appropriate Assessment report about the potential for dredger activity close to the North Slob to cause disturbance to Greenland White-fronted Geese feeding on the North Slob. The closest vessel activity to the North Slob will be around 400 m from the sea wall, or around 350m while the Branding is travelling to/from its site. It is not known whether Greenland White-fronted Geese are susceptible to disturbance from dredgers at these distances from the sea wall. Given the current low frequency of dredger activity in sites 46A, 49B and 52A, any disturbance of Greenland White-fronted Geese by dredger activity in these sites is likely to be a rare event and on a comparable scale to disturbance by licensed wildfowling (which occurs on around 5% of days during the October- March period).

There was another site close to the sea-wall (site 57F), but this licence has expired and no renewal application has been received.

### **Bottom mussel culture impacts on Scaup, Goldeneye, Red-breasted Merganser and Great Crested Grebe**

There is potential for night-time dredging to cause disturbance to nocturnal roosts of these species. This potential impact can be mitigated by an appropriate licence condition prohibiting night-time dredging.

### **Bottom mussel culture impact on intertidal mussel beds**

In the long term, it is possible that the seed collection method could prevent the regeneration of existing intertidal mussel beds and reduce the quality of the habitat for Oystercatcher, Knot, Curlew and Redshank.

### **Bottom mussel culture impact on high tide roosts**

Mussel-related boat activity could cause disturbance to high tide wader and tern roosts on sandbanks in the mouth of Wexford Harbour.

### **Intertidal oyster culture impact on Golden Plover, Grey Plover, Knot, Sanderling and Bar-tailed Godwit**

Taking all the relevant factors into consideration, it is probable that the displacement impacts for these species will be substantially less than 5%. However, there is a significant uncertainty attached to this assessment due to the very limited low tide count data.

### **Intertidal oyster culture impact on Little Tern**

While the distance of site T03/092A from the Bird Island colony site appears sufficient to prevent disturbance to the colony (providing no dogs are brought out), there is some uncertainty about this assessment, given the lack of site-specific data on the response of Little Tern to disturbance in Wexford Harbour, and the perceived high sensitivity of Little Tern breeding colonies to disturbance in remote locations.

### **Assessment of impacts of suspended mussel cultivation**

There are no sites currently licensed for suspended mussel cultivation in Wexford Harbour and the Raven. There are 10 sites (covering a total area of 128 ha) with applications for suspended mussel cultivation in the Raven SPA. There are also another six sites (covering a total area of 68 ha) in Rosslare Bay. The individual sites range in size from 7-15 ha, with a mean size of 12 ha. While the Rosslare Bay sites are outside the Wexford Harbour & Slobbs and the Raven SPAs, they are considered in this assessment as they occur in an area that is likely to be used by some SCI populations from these SPAs. The Appropriate Assessment has not identified any potentially significant impacts from the proposed suspended mussel culture in the Raven and Rosslare Bay. However, the reliability of this assessment for Common Scoter and Red-throated Diver is only moderate due to the high potential sensitivity of these species to disturbance impacts, and the limited quantitative data available on the nature of their disturbance responses.

### **Cumulative impacts**

Fishing activities in the Lower Slaney River Valley SAC are confined to activities associated with the bottom mussel culture. Specifically, this relates to potting for crabs as a predator control measure to remove crabs from the mussel beds. Other fisheries occur outside of the SAC and specifically seed mussel fisheries which supply the majority of seed into the harbour which was assessed separately during 2013, and presents no in-combination effects with the aquaculture activities in the SAC. The potting is unlikely to impact on the habitat or species features in the SAC. There are a number of wastewater plants presenting a pollution risk to the SAC upstream and within the River Slaney Valley SAC. Details can be found in the shellfish water characterisation reports. Specifically, the wastewater treatment plant

in Wexford Town has secondary treatment, nutrient removal and UV disinfection. The pressure derived from these facilities is a discharge that may impact upon levels of dissolved nutrients, suspended solids and some elemental components e.g. aluminium in the case of water treatment facilities. It should be noted that the pressures resulting from fisheries and aquaculture activities are primarily morphological in nature. It was, therefore, concluded that given the pressure resulting from say, a point discharge location (e.g. urban waste-water treatment plant or combined sewer overflow) would likely impact on physico-chemical parameters in the water column, any in-combination effects with aquaculture activities are considered to be minimal or negligible.

Other activities that may occur in the SAC are primarily recreational activities (hunting, sailing, recreational fishing and beach activities). In summary, there are no likely in-combination effects between these other activities and aquaculture in relation to habitat qualifying features.

### **Ex-situ Effects**

In addition to the two SACs under consideration in this report, Slaney River Valley SAC and Raven's Point SAC, there are a number of other Natura 2000 sites proximate to the proposed activities. The characteristic features of these sites were identified and a preliminary screening was carried out on the likely interaction with aquaculture and fishery activities based primarily upon the likelihood of spatial overlap or other interactions (*ex-situ* effects). All qualifying features screen out and are not considered further in this assessment.

## **CONCLUSIONS**

### **Annex I Habitats**

#### **Conclusion 1**

The culture/collection of wild mussel seed on longlines and rafts that might occur outside of the boundaries but are proximate to the two SACs are deemed to be non-disturbing to the conservation features of the SAC.

#### **Conclusion 2**

By virtue of extensive spatial cover (>15%) the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not Covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC as well as a number of constituent marine community types

#### **Conclusion 3**

By virtue of extensive spatial cover (>15%) the levels of existing and proposed culture of bottom mussel culture activities are considered disturbing to the community type - Estuarine muds dominated by polychaetes and crustaceans community complex within the habitat feature Mudflats and Sandflats not Covered by Seawater at Low Tide (1140) in the Raven Point Nature Reserve SAC.

#### **Conclusion 4**

The proposal to culture oysters (intertidally on trestles) is not considered disturbing to habitat feature Estuaries (1130) and Mudflats and Sandflats not covered by Seawater at Low Tide (1140) in the Slaney River Valley SAC.

#### **Conclusion 5**

Removal of seed resources from intertidal habitat will also result in disturbance to 1140 habitat features by destabilising the reef structure formed by mussels and reducing habitat complexity and associated biodiversity.

*This conclusion formed part of the previous version of the Conclusion Statement and the Marine Institute has confirmed that only one site currently under consideration is affected. Full account of the relevant recommendations made in the Appropriate Assessment report will be taken in any licensing decisions.*

#### **Conclusion 6**

Based upon experience elsewhere, the introduction of ‘½ grown’ or ‘wild’ oyster or mussel seed stock into aquaculture plots (both within and proximate to the SAC) from outside of Ireland does pose a risk of establishment of non-native species in the SAC.

### **Annex II Species**

#### **Conclusion 1**

The current levels of aquaculture production are considered non-disturbing to harbour seal conservation features in all areas of the SAC. It is important to note that area covered by the (subtidal) bottom mussel culture activities would appear to be considerably smaller than those represented by licensed areas, which extend into the intertidal areas. This is verified by aerial imagery which shows no mussel beds in the vicinity of the seal sites. If actual production were to occur over or close to the seal haul-out areas then a risk of disturbance to seal cannot be discounted.

#### **Conclusion 2**

In relation to new licence applications, similar to licensed areas, there is considerable overlap with seal haul out locations and a number of new applications. If actual culture activities were to extend to intertidal/shallower areas proximate to the seal sites then this would present a risk to seals. On the basis of distance from the seal haul out locations, the proposed oyster trestle culture sites are considered non-disturbing to seal conservation features.

#### **Conclusion 3**

The current and proposed levels of aquaculture are considered non-disturbing to otter (*Lutra lutra*) conservation features in all areas of the SAC.

## **MITIGATION / MANAGEMENT MEASURES**

### 1. Benefits of mussels to the system

Mussels have been a historical constituent in the waterbody in Wexford Harbour. The filtration capacity of the mussels may have a beneficial impact on the eutrophication status of the bay and the habitat provision by mussels can be beneficial to the ecological function of the system. In summary, the view is that bottom mussel culture, at current levels, does have an overall positive role in ecosystem.

The addition of more mussels to the system (with new applications) should have additional benefit in terms of reducing effects of eutrophication, and may mitigate the water quality status in the Lower Slaney water-body.

### 2. Estuaries

Threshold of 15% will be exceeded if all applications are licensed. However, the benefits of mussels to the system, as outlined above, are also a significant consideration in possibly allowing exceedence of the 15% threshold in the estuaries feature.

### 3. Remove spatial coverage over Mudflats and Sandflats

There is a clear distinction between current licence levels and current levels of activity. Mussel culture mainly occurs in deeper subtidal areas of the SAC. It is anticipated that no culture (and disturbance from same) will occur in intertidal and shallow subtidal areas. This is an important consideration, particularly in the outer parts of the water body where the qualifying feature is Mudflats and sandflats not covered by seawater at low tide (1140).

The Department and its scientific advisors consider that the GSI estimates of intertidal areas are more accurate and reflect the reality of intertidal extent in Wexford. On this basis, the Department proposes that the determination of aquaculture licence applications for sub-tidal activities (bottom mussel culture) be informed by the outputs of GSI mapping. Therefore, all recommendations relating to likely disturbing activities will be on the basis of GSI mapping of intertidal habitat rather than the intertidal mapping primarily generated by the OSI discovery series.

On the basis of the Appropriate Assessment report findings, it is proposed to re-draw the boundaries of sites which will take bottom mussels out of intertidal areas. This will result in minimal or no coverage of the qualifying feature Mudflats and sandflats not covered by seawater at low tide (1140).

4. Placing of appropriate Buffer zones around Seal haul out areas, as required. Vessel and human activity to be confined to mid-tide to high-tide periods only when seals are less likely to be hauling out.
5. Any licences issued will include a prohibition on night-time dredging

6. The use of updated and enhanced Aquaculture and Foreshore Licences containing terms and conditions which reflect the environmental protection required under EU and National law.
  
7. Full account will be taken of the recommendations made in the Appropriate Assessment in relation to the Little Tern Colony with regard to the licensing of affected sites.

## Aquaculture & Foreshore Application Observations

<b>Application No: FS007261</b>	<b>Applicant Name &amp; Area:</b>	
<b>Site Investigations application</b>	<b>Shelmalere Offshore Wind Farm Limited</b>	
<b>Application Category</b>		
Aquaculture: <b>N</b>		Foreshore: <b>Y</b>
Application Pre <b>N</b>	Application <b>Y</b>	Post Determination <b>N</b>

### Sea Fisheries Protection Officer Observations

- Possible impacts, if any, on existing wild fisheries in the area, with an emphasis on the possible implications for the SFPA conducting official controls and possible non-compliance issues that could arise.*

The applied area of foreshore amounts to approximately 298.3km<sup>2</sup> for the array and 341.4km<sup>2</sup> for the cable route. There are a number of wild fisheries within the applied area. Fisheries data is currently lacking at a high resolution within the ICES Sub Area VIIa. The applied area falls within the statistical rectangles 34E3 and 33E3 and although vessel catch data is collected for vessels over the 12m length, a large number of vessels less than 12m may operate in the applied area fishing both static and active fishing gear where catch data may not be collected and which would provide greater accuracy in location and fishing effort within the applied area. The main species in the under 12m vessel range is primarily crustacean and bivalve. It is currently unknown if the activities of site investigations using sound instruments in profiling the seabed have a negative effect on marine organisms and therefore it is unknown at this stage if spatial squeeze will occur with the under 12m fleet should a negative effect on fishing effort in the applied area.

At this stage it is unlikely that the SFPA will experience difficulties with non-compliance issues assuming that spatial squeeze with the under 12m fleet does not happen.

The applicant has engaged the services of a fisheries liaison officer, community and stakeholder manager and given assurances in their application that notices to mariners will be published.

- Impacts, if any, on shellfish growing areas adjacent to or within the area and the possible impact on the ability of the SFPA to conduct official controls and possible non-compliance issues that could arise.*

There are currently five areas within or adjacent to the applied area of foreshore. Wexford Harbour is both a classified shellfish production area for *Mytilus edulis* and a designated area under the shellfish (quality) growing waters. Two classified shellfish production areas, Rosslare and Curracloe where the target species is *Ensis siliqua*. The Blackwater and Glassgorman banks are fished on an annual basis for seed *M.edulis* to supply licenced aquaculture beds in Wexford Harbour, Carlingford Lough and Belfast Lough. A licenced aquaculture installation for the collection of *M.edulis* seed is located north of the applied foreshore area.

The proposed site investigations include 117 boreholes which in the cable investigation area are likely to be in the 20m depth range and the activity may cause an increase in the quantity of sediment in the shellfish harvested which may have an effect on the chemical quality of the flesh, Depending on the timing and duration of the proposed two stage investigations, measures may be needed to restrict access for dredge vessels to the area for the cable investigations as they can operate in depths of 15m.

With regards to the SFPA performing fishery control activities, it is unlikely that the site investigations will have a negative impact.



3. *Possible impacts, if any, on seafood safety.*

With any site investigations in or adjacent to classified shellfish production areas the risks of contamination of the shellfish which are destined for consumption comes from disturbance of the seabed from drilling boreholes and the possibility of a pollution incident from the investigation platforms (vessels and barges). Should a pollution incident occur during the investigations, the applicant must contact the SFPA Dunmore East and SFPA Howth Offices to limit the possibility of potentially contaminated shellfish being placed on the market. Contact details for both SFPA Offices are [sfpadunmore@sfpa.ie](mailto:sfpadunmore@sfpa.ie) and [sfpahowth@sfpa.ie](mailto:sfpahowth@sfpa.ie)

**Name:**  
**Sea Fisheries Protection Officer**

**Port: Howth**

**Date: 30-11-2022**

**Signature:** \_\_\_\_\_