

FS007161 Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde Rocks Offshore Wind Farm Prescribed Bodies Consultation

Observations Received :

Marine Advisor Engineering

Marine Advisor Environment

Marine Institute

Irish Lights

Inland Fisheries Ireland

Sea Fisheries Protection Authority

Underwater Archaeology Unit FEMDAU / National Parks and Wildlife Service NPWS (DAU)

Marine Survey Office

Department of Agriculture, Food and the Marine



[REDACTED]
Foreshore Unit,
Department of the Housing, Local Government and Heritage,
Newtown Road,
Co. Wexford.
30/01/2023

Re: FS007161 - Sceirde Rocks Offshore Wind Farm - Foreshore Licence application for ORE Site Investigation off county Galway

Applicant: Fuinneamh Sceirde Teoranta (FST)

Project Overview

Fuinneamh Sceirde Teoranta (FST), are applying for a Foreshore Investigation Licence from the Department of Housing, Local Government and Heritage (DHLGH) to undertake site investigations to determine the geotechnical, geophysical, metocean, wind resource and benthic characteristics of the proposed Sceirde Rocks Offshore Wind Farm site. This Foreshore Licence Application is for site investigation activities only, there will be no permanent structures erected as part of the proposed activities.

Sceirde Rocks Offshore Wind Farm is a fixed bottom offshore wind farm off the West Coast of Ireland and under the Transitional Protocol is recognised as a Relevant or Phase One project. As such, Sceirde Rocks Offshore Wind Farm is a high priority project and it is anticipated that this project will be prioritised through the Foreshore License process, the MAC award process and subsequently will be one of the first projects eligible for the first ORESS-1 auction. Sceirde Rocks Offshore Wind Farm will be targeting an accelerated delivery programme for this offshore project to meet government renewable energy targets pre-2030. This application specifically relates to a foreshore license for site investigation activities at the proposed wind farm array site. A foreshore licence for site investigations relating to the potential export cable route corridors has been submitted under FS007543 and will be dealt with separately.

Brief description of works

The proposed survey categories are:-

- **Wind Resource** – Floating Lidar
- **Metocean** – deployment of up to 3 metocean devices
- **Benthic Ecology** – Grab Sampling, Video Surveys, Water Sampling
- **Geotechnical** – boreholes, Vibrocores, CPT, down hole acoustic imaging
- **Bathymetric and Geophysical Surveys** – Multibeam Echosounder, Side Scan Sonar, Sub Bottom Profiler, Ultra High Resolution Seismic

Further information on techniques and equipment to be utilised during the investigation works are provided by the applicant in the Schedule of Activities document. The proposed start date is as soon as possible after the issuance of a Foreshore Licence and the proposed duration is over a 5 year period.



Coastal Processes

The proposed site investigation works will have no impact on the existing coastal processes.

Estate Management

All foreshore is presumed state owned unless proven otherwise. In this case there are no known established claims of private ownership of the foreshore at this location. Subject to no claims of private ownership arising out of the application and public consultation process, the foreshore the subject of this application is state owned. Section 3 of the Foreshore Act applies for the proposed site investigation. The licence area for the proposed works is shown outlined on the following map submitted by the applicant:

- Map No: L100725-S00_Location_Foreshore.mxd, Date 6/04/2022 and entitled 'Figure 1 Rev 1 Foreshore Licence Map'

The proposed area of foreshore associated with the works is 14,100ha.

The site investigation will have no permanent impact on other legitimate users or existing access arrangements. The applicant shall use that part of the foreshore, the subject matter of the application for the purposes as outlined in the application and for no other purposes whatsoever. Where relevant the foreshore and adjacent seashore area shall be restored to its natural state on completion of the works to the satisfaction of the Department of Housing, Local Government and Heritage.

Public Interest

Section 2 and 3 of the 1933 Foreshore Act, as amended, states that a lease or licence of state foreshore may be granted "If, in the opinion of the Minister, it is in the public interest". As foreshore is a finite and valuable national resource and public amenity, it is important that each plan and project is fully assessed to ensure, that if consented to, it is a sustainable and proper use of that finite and valuable resource. Having considered and assessed the relevant issues associated with the proposed site investigation, while taking note that the state owned foreshore is finite resource which must be utilised sustainably, I am satisfied that the proposed works are in the Public Interest.

National Marine Planning Framework (NMPF)

The National Marine Planning Framework (NMPF) is a national plan for Ireland's marine area including the Foreshore. It sets out, over a 20-year horizon, how we want to use, protect and enjoy our marine area. The NMPF sits at the top of the hierarchy of plans and sectoral policies for the marine area and provides a coherent framework in which those sectoral policies and objectives can be realised. All decisions on individual applications determined under the Foreshore Act, must secure and be consistent with the objectives of the plan, similar to the way that terrestrial plans form part of the decision-making tool-kit in the on-land planning process. NMPF objectives are supported by specific policies that articulate factors that can form part of objective consideration.



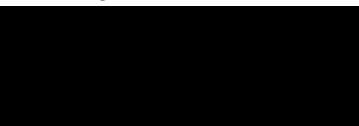
Having reviewed and assessed the information on file for this application to conduct an ORE Site Investigation against the objectives of the NMPF, I am satisfied the proposed works do not act significantly against any objective within the NMPF. Furthermore, the project is aligned and secures key sectoral/activity objectives including Energy – Offshore Renewable. Of particular relevance is ORE Policy 2 as this application relates to a ‘Relevant Project’ as designated under the Transition Protocol. Accordingly, I am satisfied that the ORE Site Investigation is aligned with and secures the objectives set out in the NMPF.

Conclusion/Recommendation

I have no objection to the granting of a Foreshore Licence subject to the following conditions:

1. The Licensee shall use that part of the foreshore, the subject matter of this licence for the purposes as outlined in the application and for no other purposes whatsoever.
2. The works shall be located as outlined on Map No: Map No: L100725-S00_Location_Foreshore.mxd, Date 6/04/2022 and entitled ‘Figure 1 Rev 1 Foreshore Licence Map’
3. The Licensee shall notify the Department of Housing, Local Government and Heritage at least 14 days in advance of the commencement of any works on the foreshore.
4. During the course of the works the Licensee shall ensure that existing public access arrangements are maintained, where possible, and all necessary precautions are put in place to protect the public in accordance with relevant Health and Safety Legislation.
5. At the end of each phase and/or calendar year, the Licensee shall inform the Department of the work completed to date and the works planned for the coming year.
6. The Licensee shall submit, to the Department, the ‘as deployed’ location for all monitoring devices.
7. On completion of the site investigation the Licensee shall ensure that all equipment and materials are removed and the foreshore is reinstated to its natural condition to the satisfaction of the Department of Housing, Local Government and Heritage.
8. The Licensee shall ensure that contractors, and their subcontractors, are made aware of all conditions and project specific requirements and they are required to have briefings on these to ensure all parties are fully aware of these requirements.

Kind regards,



— C.Eng. M.Sc. MIEI



[REDACTED],
Foreshore Unit,
Department of the Housing, Local Government and Heritage,
Newtown Road, Co. Wexford
27th January 2023

Prescribed Bodies Consultation - Environmental Report

Re: FS007161 Site investigation of the offshore array area at Sceirde Rocks, Co. Galway.

Applicant: Fuinneamh Sceirde Teoranta

Dear [REDACTED],

Your email of the 22nd of December 2022 refers to this licence application for Site investigation of the offshore array area at Sceirde Rocks, Co. Galway.

This area on the exposed west coast of Ireland is of conservation important for marine mammals including Bottlenose dolphin, Harbour porpoise, Grey seal and Harbour seal. Kilkieran Bay itself with its south-westerly opening it subject to strong tidal currents between its islands and through its channels. This results in a wide diversity of species and communities. It hosts the best example in Ireland of the sponge/ascidian of *Raspailia ramosa* and *Corella parallelogramma* community occurs in the deep waters of Gurraig Sound. This community has a high diversity of encrusting and branching sponges and ascidians, including the rare sponges *Plakortis simplex* and *Tricheurypon viride*. Kilkieran Bay is one of only three known localities in Ireland where the maerl species *Lithothamnion corallioides*, *Lithophyllum dentatum* and *Lithothamnion fasciculatum* co-occur. The range of maerl deposits in Kilkieran Bay, including banks of maerl debris, live maerl and mixtures of maerl, gravel and mud gives rise to a variety of communities. Within these communities are a number of rare anemones, e.g. *Scolanthus callimorphus*, *Mesacmaea mitchellii* and *Aureliania heterocera*. The last-named species is rare in Ireland, being known only from Donegal Bay and Kilkieran Bay, as well as a small number of areas on the north-east coast. The population in this site is the largest on the west coast. Kilkieran Bay is the only known Irish locality for the anemone *Mesacmaea mitchellii*. *Scolanthus callimorphus*, another anemone species, is known only from Kilkieran Bay, Valencia Harbour in Co. Kerry and the Dorset coast in the U.K. The best recorded example of the community characterised by the sea cucumber *Neopentadactyla mixta* occurs in the banks of dead maerl of Kilkieran Bay.

Assessment Process

The Minister for Housing, Local Government and Heritage, is responsible for carrying out environmental screening and any environmental assessments determined as being required following screening, in accordance with the requirements set out in Directive 92/43/EEC (**Habitats Directive**) and Directive 2009/147/EC (**Birds Directive**), in respect of applications under the The Foreshore Act 1933, as amended.



Habitats Directive

The Appropriate Assessment process (AA) is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European Site (Natura 2000 site). The focus of AA is targeted specifically on Natura 2000 sites and their conservation objectives.

Article 6(3) and 6(4) of the **Habitats Directive** place strict legal obligations on Member States to regulate the conditions under which development that has the potential to impact on European Sites can be proceed. It requires that an Appropriate Assessment be carried out of plans or projects, not directly connected with or necessary to the management of a site as a European Site, but which are likely to have a significant effect thereon, either individually or in combination with other plans or projects. An AA Screening assessment is carried out to determine whether a plan or project is likely to have a significant effect on a European Site.

- Article 6.3 states that: *“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”*
- Article 6.4 states: *“if, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.”*

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”

In giving effect to the above as a matter of Irish law, the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended) (**Birds and Natural Habitats Regulations**) provide as follows:-

Regulation 42(1) of the Birds and Natural Habitats Regulations states that: *“A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site”.*



Regulation 42(2) provides that: “A public authority shall carry out screening for Appropriate Assessment under paragraph (1) before consenting for a plan or project is given, or a decision to undertake or adopt a plan or project is taken”.

The Birds and Natural Habitats Regulations further provide as follows at Regulation 42 (6) and 42 (7):-

6. The public authority shall determine that an Appropriate Assessment of a plan or project is required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it cannot be excluded, on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.

7. The public authority shall determine that an Appropriate Assessment of a plan or project is not required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.

Furthermore, under section 42A (13) of S.I. No. 293 of 2021 an Appropriate Assessment, including the specified public consultation, must be carried out before the public authority makes a decision to undertake or adopt the proposed plan or project.

Risk Assessment for Annex IV Species

Article 12 of the Habitats Directive (92/43/EEC) affords strict protection to species listed in Annex IV of the Directive wherever they occur. Outside of designated Natura 2000 sites, the waters around Ireland’s coast are a suitable habitat for a number of Annex IV species. Where necessary a Risk Assessment for adverse effects of the proposed works on these species must be undertaken and a report produced.

The purpose of the Risk Assessment is to examine the possibility that the proposed project either individually or in combination with other plans and projects, may result in the deliberate disturbance or destruction of any of the species listed in Annex IV which may be present in the works area. The Risk Assessment should take into account the status (e.g. as indicated in the latest Article 17 reporting for Ireland, NPWS 2019) and sensitivities of relevant Annex IV species to potential impacts associated with the proposed project.

The Risk Assessment for Annex IV Species should be precise, with definite findings, mitigation and conclusions removing all reasonable scientific doubt as to the effects of the proposed project on any Annex IV species. This assessment is separate to that undertaken under Article 6.3.



Conclusion/Recommendation

In principle I have no objections to this application. On completion consultation process, I will furnish my final report with determinations. These may include any case specific conditions having regard to the information obtained from the consultation phase.



Marine Advisor, Environment.

To: [REDACTED], Foreshore Unit, DHLGH

From: [REDACTED]

Re: Foreshore Applications FS007161 and FS007543 for Sceirde Rocks ORE proposed lease area and proposed cable routes

The Marine Institute has been asked to provide comments on foreshore licence for site investigations for a proposed ORE site at the Sceirde Rock (Co. Galway) and proposed cable routes landing in either Cos Galway or Clare. The proposed lease area and export cable corridor areas are covered under foreshore applications FS007161 and FS007543, respectively.

Both applications refer to a series of detailed site investigations to be carried out in an area for the proposed windfarm (14,100ha) and along three proposed cable route corridors through Galway Bay to Tawin Island in the inner bay and south to the Co Clare coast coming ashore at two possible locations near Milltown Malbay and Doonbeg.

The applications are for permission to carry out site investigation works only and extends to ecological, geophysical and geotechnical surveys over the proposed licence application and prospective cable route areas. It is noted the installation of a windfarm and associated infrastructure in the area in the future would be the subject of a separate Foreshore Lease / Licence application and is not the subject of this current application.

The overall aim of the site investigations is to collect the necessary data and information required to inform the engineering and detailed design of the proposed windfarm and cable route ashore within the foreshore licence application area. In addition, it is proposed to generate up-to-date wind resource and metocean data as well as environmental and ecological data to inform the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) for any future offshore windfarm project that comes forward within and outside of the Foreshore Licence Application Area. The Marine Institute is of the view that the outputs of any surveys be also used by the regulatory body (DHLGH) to generate baseline information in order to inform future monitoring.

It is proposed that the site investigations will include, among others:

1. Geophysical Survey - involving the use of multibeam echo sounder, sidescan sonar, Sub-Bottom Profiling (SBP) / Ultra High Resolution Seismic (UHRS), magnetometer,
2. Geotechnical survey – involving cone penetration testing as well as vibrocore and gravity coring, boreholes and the collection of grab samples for sediment and faunal analysis. The exact location, quantity and type of geotechnical samples collected would be subject to the results of the geophysical survey
3. Environmental Survey – It is anticipated that benthic grab samples (0.1m³) will be collected. The exact locations would be subject to the results of the geophysical survey. Video or still photographs will also be collected. Other ecological studies will include Bird, fisheries and marine mammal (using SAMs) surveys.
4. Metocean - It is also intended to deploy of wind, wave and current measuring devices (LIDAR buoy, Wave Buoys and ADCPs) in the survey area.

The number of specific test locations are clearly detailed in both applications and supporting documentation. The proposed site investigation methods are relatively standard and have been used previously in similar investigations in Irish waters and internationally.

It is intended that the proposed survey works would be phased over a period of 5 years following award of licence and specific survey scope will range from 2 months to 3 years in duration.

There are no licenced aquaculture sites within the proposed site investigation area on the Foreshore. The closest licenced aquaculture site to the proposed windfarm area is within Betrabouy Bay at approx. 2.5km from the proposed windfarm area. The closest licenced aquaculture site to the proposed route is likely in inner Galway Bay near Tawin Island at 300m (T09-520A). The exact locations of licenced aquaculture sites and details of species cultured can be found at the following link: <https://dafm-maps.marine.ie/aquaculture-viewer/>

In addition, DAFM have overseen the production of Natura appropriate assessment reports which consider interactions between Natura qualifying interests and aquaculture operations (existing and proposed) that have been carried out nationally and more specifically, in inner Galway Bay Natura 2000 sites. These reports can be found at the following link and give an indication of likely aquaculture activities occurring in the general area and a conclusion on their likely impact on N2000 sites.

[Aquaculture AA reports pre-2020](#)

Given the nature of the proposed site investigations, impacts on aquaculture are not considered likely.

There is commercial fishing activity within the proposed site investigation area on the Foreshore and therefore some interaction with fishing activity may occur. Notwithstanding this, it is noted that the applicant has appointed a Fisheries Liaison Officer who will engage with the fishing interests in the area during investigations. It would be important the views and concerns of the fishers in the areas to be surveyed be adequately addressed to the satisfaction of the Department. The MI refers the applicants to the [Shellfish Stock and Fisheries Review 2021](#) (Authors MI and BIM) for information on inshore fishery stocks.

The NIS submitted identifies a number of risks to conservation features (e.g., marine mammals) likely to result from the proposed activity. As mitigation, a number of actions are suggested that should reduce the risk. Foremost among these is the use of marine mammal observers (MMO) during operations including a 'soft start' protocol. The MI is satisfied that such measures will mitigate any risk to marine mammals during the site investigations. It is advised that DHLGH identify if any similar geophysical surveys may be carried along the west coast be identified and that they not coincide with this survey. It would be important that any geophysical surveys be carried out in isolation so as to avoid any potential cumulative effects on marine mammals.

On a broader note, the MI advises DHLGH that similar 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 particular. In addition, having these baseline data will facilitate future assessment of impacts of developments beyond the footprint of the licence/lease area. This would apply specifically to mobile species, such as mammals and birds.

Notwithstanding the observations communicated above, we note that a function of a statutory body is to comment on the likely impact of the proposed activity. On the basis of the above and considering the nature, scale and location of the proposed site investigations the Marine Institute is satisfied that the site investigations as proposed will not have a significant impact on the marine environment in the survey area and will not have a significant impact on other legitimate uses /

users of the area and therefore has no objections to a licence being granted. It is recommended that the following specific conditions should be attached to any licence that may issue.

1. The Licensee shall use that part of the Foreshore the subject matter of this licence for the purposes as outlined in the application and for no other purposes whatsoever.
2. The Licensee shall ensure that the survey activities are carried out and completed in accordance with the plans and particulars lodged with the application.
3. The Licensee shall appoint a Fisheries Liaison Officer who shall consult with relevant fisheries agencies and groups in addition to charter boat skippers in order that appropriate actions can be taken to avoid or minimize any interactions with ongoing fishing / angling and other tourism activities in the area during the course of the investigations.



Commissioners of
IRISH LIGHTS

Navigation
and Maritime
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01 February 2023

Foreshore Unit
Newtown Road,
Carricklawn,
Wexford,
Y35 AP90

**FS007161 Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde Rocks
Offshore Wind Farm**

Dear [REDACTED],

Irish Lights has reviewed this application and has the following observations:

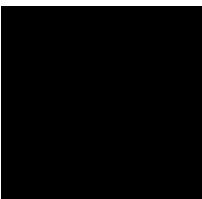
Irish Lights notes from the application that there may be a number of Aids to Navigation (AtoN) deployed: Wave buoys and Lidar buoys. Before any aid to navigation can be established, altered or disestablished, consent in the form of Statutory Sanction under the Merchant Shipping Act must be obtained from the Commissioners of Irish Lights. The aid must be colored and marked as per IALA (International Association of Marine Aids to Navigation and Lighthouse Authorities) Standards.

Please note that within the proposed Foreshore Licence Application area there are a number of existing Aids to Navigation. 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.

Recommend that a marine notice should be issued detailing the works and duration.

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

Yours sincerely,



Acting Navigation Services Manager



**Iascach Intíre Éireann
Inland Fisheries Ireland**

MARINE LICENCE VETTING COMMITTEE:

**RE: FS007161 Fuinneamh Sceirde Teoranta - Site Investigations for the proposed
Sceirde Rocks Offshore Wind Farm**

Request for observations from [REDACTED] (DHLGH) dated 22/12/2022.

Overview:

The objective of the proposed Sceirde Rocks Offshore Wind Farm site investigations is to determine geotechnical, geophysical, metocean, wind resource and benthic characteristics within the Foreshore Licence Area.

IFI Comment

IFI note the mitigation measures to be employed for marine mammals with a soft start ramp up procedure. IFI would point out that the mitigation measures and guidance of NPWS in regard to marine mammals are not transferrable to fish species. The fish remain invisible to any shore- or boat-based observer. Mitigation measures should aim to reduce the sound generated, in intensity and duration. The use of soft-start and ramp-up procedures for any sound-generating surveys undertaken – both on a day-to-day basis and on re-start after any stoppages within any day should be undertaken. This measure should be a condition of the foreshore licence. The comments of IFI in this regard relate to fish species of conservation significance and of leisure angling significance all of which constitute part of IFI's brief.

Special consideration may need to be paid to resident and migratory fish species which could be passing through the area and potentially effected by noise (sound) and vibration effects introduced into the water column due to investigation works. The timing of the proposed works should be carefully considered in order to reduce potential interference with the natural movements of these diadromous species (salmon, eel and lamprey).

[REDACTED] (IFI R&D)
03.03.2023



Iascach Intíre Éireann
Inland Fisheries Ireland





Aquaculture & Foreshore Application Observations

Application No: FS007161	Applicant Name & Area:
Main Array application	Fuinneamh Sceirde Teoranta
Application Category Seafood Offshore Renewable Energy. Wind Site Investigations off the County Galway coast. Total applied area 141000 hectares Proposed output 450 MW	

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 is in the fishing area known as the Western Waters. ICES Sub Area VIIB. Statistical rectangles 35D9 and 35E0. The application is approximately 5km from the nearest landfall. The water depth is in the 20-50m range.

The proposed application is within recognised spawning and nursery areas for *Gadidae*, *Clupeidae*, *Scombridae* and *Lophidae* species.

Commercial fishing within the applied area targets Demersal, Pelagic, Crustacean and Shellfish species. Vessels from the 10-18m categories fish the proposed area with static gear targeting *Merluccius merluccius* (Northern Hake), *Scophthalmus maxima* (Turbot) and *Lophius spp* (Monkfish).

Crustacean fisheries for *Homarus gammarus* (European Lobster), *Cancer pagurus* (Edible Crab) and *Paleamon serratus* (Brown Shrimp) are targeted by the potting fleet on an annual basis (*P.serratus* is subject to a closed season annually).

The site investigations may cause spatial squeeze for both the inshore and offshore sectors of the fishing industry during the duration of the proposed site investigations. Access restrictions will be in place when the surveys are underway (proposed annual surveys are 1-5 months over a 5 year period). Static fishing gear will have to be removed from the grounds which can be problematic for the smaller vessels due to alternative grounds being accessible, inclement weather and proximity of the vessels home ports.

The applicant has appointed a Fisheries Liaison Officer (FLO) for the proposed site investigations. Effective communication between the FLO and the fishing community and the timely publishing of



notice to mariners is required.

It is not envisaged that the site investigations will cause difficulties with conducting official controls for the SFPA within the applied area.

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 no Designated areas under the shellfish quality of waters regulations within the proposed area. The nearest shellfish production area is Cill Chiarán where *Crassostrea gigas* (Pacific Oyster) is produced.

The SFPA should have no difficulty in conducting official controls in the proposed area.

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

The site investigations for the proposed wind farm array will use survey platforms in the form of vessels and barges. Contamination from an accidental pollution spill is the main concern for the fish and shellfish species within the applied area. Effective communication between the applicant and its contracted parties with the SFPA should any pollution event occur can reduce the risk of potentially contaminated shellfish being placed on the market for consumption.

The application falls within the SFPA Ros An Mhil Port. Additionally from a National perspective, the Food Safety and Fisheries Support Unit of SFPA headquarters coordinates all communications on risk to both SFPA port officers and seafood producers.

Contact details for SFPA Offices within the applied area.

- Ros An Mhil Port Office; rossaveal@sfpa.ie +353 91 572405
- Clonakilty Food Safety & Fisheries Support; sfpafood&fisheriessupport@sfpa.ie +353 23 8859300

Sea-Fisheries Protection Authority

Date: 1-2-2023

From: [REDACTED]@npws.gov.ie>
Sent: Tuesday 24 January 2023 16:05
To: [REDACTED]@housing.gov.ie>
Cc: Housing Foreshore <foreshore@housing.gov.ie>
Subject: FS007161 Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde Rocks Offshore Wind Farm

A chara

Please find below the heritage recommendations of the Department for the above mentioned application.

Underwater Archaeology

The Underwater Archaeology Unit (UAU) of the National Monuments Service, Department of Housing, Local Government and Heritage has reviewed the submitted documentation in relation to the above Foreshore Licence application for marine site investigation surveys in support of a future offshore wind development offshore of Galway. The observations and recommendations set out below are provided in accordance with Sections 19 and 18 of the Foreshore Act and with the requirement as set out in Statutory Instrument 353/2011 – Foreshore Regulations 2011 - and the National Monuments Acts 1930 to 2014. The proposed investigations will provide mapping of the seabed geology, relief and features, metocean conditions, baseline environmental mapping (habitats and species) and the results will be used for selection of the windfarm area and its cable route(s), the landfall option(s) and will provide baseline data for future Environmental Impact Assessment Report and other environmental impact assessments. The geotechnical works would include Borehole Sampling (up to 60 No.), Down-hole Acoustic Imaging, Shallow sampling (60 No. locations) using grab samples, Vibrocores, and gravity cores and Cone Penetration Tests. The geophysical surveys would include multibeam echosounder (MBES), side scan sonar (SSS), magnetometer, sub-bottom profiler (SBP) and a seismic survey using Ultra High Resolution Seismic (Boomer/Sparker).

Table 4.3 (Potential Effects on Environmental Receptors) of the application document 'Sceirde Rocks Offshore Wind Farm Export Cable Corridor Foreshore Licence Application Environmental Assessment and Environmental Impact Assessment Screening Report' contains a brief overview of the potential effects and proposed mitigation pertaining to archaeology. This section, and the broader application documentation, does not, however, adequately assess the archaeological potential of the application area and the sufficiency or otherwise of the proposed mitigation cannot therefore be addressed without further information. We note that the proposed Foreshore Investigation Licence application area contains numerous wrecks protected under Section 3 of the 1987 National Monuments (Amendment) Act within the Application Area. The Wreck Inventory of Ireland Database (WIID) is the official register of historic shipwrecks protected under the National Monuments Acts. All wrecks over 100-years old are protected under the 1987 and 1994 (Amendment) Acts of the National Monuments Acts. Over 18,000 wrecks have been recorded to date within the WIID, ranging from small fishing boats, logboats and coastal traders to steamships and ocean going ships. Though earlier sources have been included where obtainable, the Inventory is largely based on documentary sources available from after 1700AD. As such, it is important to stress that previously unrecorded wreck sites, including those dating to earlier periods, may await discovery in the application area under consideration here. National policy, as set out in *Frameworks and Principles for the Protection of the Archaeological Heritage* states 'there should always be a presumption in favour of avoiding developmental impacts on the archaeological heritage' and, given the archaeological sensitivity of the application area, this core principle should be proactively enshrined within the design process.

In light of the above we recommend the following CONDITIONS be included with any Foreshore Licence that may issue:

1. A desk study Underwater Archaeological Impact Assessment (UAIA) report shall be forwarded by the licensee to the National Monuments Service of the Department of Housing, Local Government and Heritage for review and approval prior to the geophysical survey works taking place. The desktop assessment will allow for the identification of wrecks and other underwater archaeological features and areas of potential within the Foreshore Licence Application Area so that when geophysics is being undertaken, their locations will be known in advance and they can be targeted for specific survey methodologies, as appropriate. The assessment shall include a full inventory and mapping of the sites of all identified and recorded archaeological/cultural heritage features and structures (including industrial, vernacular and maritime/fishing structures) and any wrecks or potential wrecks within the Foreshore Licence Application Area identified from a review of the Wreck Inventory of Ireland Database and any previous geophysical survey data sets available. Where archaeological materials/areas of archaeological potential, wrecks are shown to be present, the report shall recommend mitigation measures and shall highlight how these areas will be targeted for detailed geophysical survey. Having completed the work, a written report shall be submitted to the National Monuments Service for review and no works shall be undertaken until a response has been received.
2. The proposed geophysical surveys shall be carried out in advance of any geotechnical works and in advance of the deployment of metocean monitoring equipment, to ensure all potential impacts to the underwater cultural heritage are avoided.
3. A Protocol For Archaeological Discoveries shall be agreed in advance of the commencement of any geophysical or geotechnical works with the National Monuments Service of the Department of Housing, Local Government and Heritage.
4. Geophysical survey of all geotechnical and potential areas of physical impact is required. At a minimum geophysical surveys shall include archaeologically applicable side scan, sonar, magnetometer and multibeam echo sounder. The geophysical surveys shall be licenced under the National Monuments Acts 1930-2014. A Dive Survey Licence (Section 3 1987 National Monuments Act) and Detection Device consent (Section 2 1987 National Monuments Act) will be required. Licence applications, accompanied by Method Statements, shall be sent for vetting to the National Monuments Service of the Department of Housing, Local Government and Heritage.
5. Should any dive surveys be required in connection with proposed geophysical surveys and archaeological surveys these shall be licenced (Section 3 1987 National Monuments Act). Any dive survey shall be accompanied by a handheld metal detection survey which shall also be licenced (Section 2 1987 National Monuments Act). All archaeological diving shall comply with the Health and Safety Authority's Safety, Health and Welfare at Work (Diving) Regulations 2018/2019.
6. An Underwater Archaeological Impact Assessment (UAIA) report shall be forwarded to the National Monuments Service of the Department of Housing, Local Government and Heritage for review and approval prior to the geotechnical works taking place. The UAIA shall augment the previous desk study assessment and shall include the following:
 - a. Results of geophysical survey data sets assessment by a suitably qualified and experienced archaeologist to ensure that proposed geotechnical works do not

negatively impact on locations where there is known or potential archaeology and to ensure no samples or cores are taken from an area where a wreck site is located. The archaeologist should also be suitably experienced, with a track record in dealing with and the interpretation of marine geophysical data for archaeological purposes, including ensuring it is of sufficient specification for the identification of underwater cultural heritage.

- b. Outcome of a detailed visual walk-over survey accompanied by a metal detection survey of areas proposed for SI works on the foreshore/intertidal zone.
 - c. Assessment of geophysical data for all proposed geotechnical investigation locations (including the taking of vibro-cores and grab samples). The assessment shall be undertaken by a suitably and demonstratively qualified archaeologist to ensure that the proposed works do not negatively impact on locations where there is known or potential archaeology and to ensure no samples or cores are taken from an area where a wreck site is located.
 - d. Once all surveys and interpretations have been completed, the full information should be compiled into a UAIA report and submitted to the National Monuments Service for review and further comment, prior to undertaking any invasive geotechnical works. The UAIA Report should contain a detailed Archaeological Impact Assessment that addresses all identified potential impacts on underwater archaeological heritage and should also make recommendations on mitigation measures to avoid or mitigate all impacts. Potential secondary or indirect impacts, such as access roads or construction works to facilitate access to the waterways, for example, shall also be included. If potential or identified sites, features or artefacts cannot be avoided (preservation *in situ*) by geotechnical works, then the UAIA Report Recommendations should put forward an archaeological mitigation strategy to address this, including preservation by record (archaeological testing and/or full archaeological excavation). Where archaeological material/features are shown to be present, preservation in situ, avoidance, preservation by record (archaeological excavation) or archaeological monitoring may be required. The Licensee shall be prepared to be advised by the National Monuments Service in this regard or in regard to any subsequent recommendations that may issue.
7. Following the completion of all geotechnical works the licensee shall furnish the project archaeologist with the results of all site investigation works and shall provide them access to site investigation cores and physical samples for review. Where potential submerged palaeolandscape deposits are identified they shall be, where suitable samples are available, radiocarbon dated in agreement with the National Monuments Service and subject to approval of Licences to Alter and Export from the National Museum of Ireland. Following the completion of all geotechnical and archaeological works and any necessary post-excavation specialist analysis, the National Monuments Service shall be furnished with a final archaeological report describing the results of the works. All resulting and associated archaeological costs shall be borne by the developer.

Nature Conservation (Marine Science and Biodiversity)

The proposed survey works at and around Sceirde Rocks Offshore Wind Farm, Co Galway have been evaluated by a Natura Impact Statement and other documents. The conclusion of the document to support the decision on Article 6(3) is that the proposed works are unlikely to pose a significant likely risk to nature conservation interests in the vicinity if specified mitigating measures are applied.

It is recommended that the application of “Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters” should be implemented in full as a condition of consent (available to download [here](#) or updates that might occur).

It must be noted that all cetaceans are listed under Annex IV (including those in Annex II) of Council Directive 92/43/EEC (the Habitats Directive). Accordingly, under Article 12 of that Directive, it is an offence to deliberately capture, disturb or kill a cetacean or take actions that result in deterioration or destruction of their breeding sites or resting places. This has been transposed into Irish Law by Regulation 51 of the European Communities (Birds and Natural Habitats) Regulations. Introduction of certain sound sources into the marine environment, as may result from construction or surveys (e.g. geophysical survey) over the foreshore, have the potential to cause injury and possibly mortality in these species. All marine mammals are protected wild animals under the Fifth Schedule, which includes all cetacean and seal species, of the Wildlife Act (39 of 1976) and Amendments. Under Section 23 (as amended in 2000), it is an offence to kill, injure or wilfully interfere with or destroy the breeding place or resting place of any protected wild animal.

The proponent should note that it is recommended that they should apply at earliest opportunity for a Regulation 54 consent to wildlifelicence@npws.gov.ie to ensure that activities can be appropriately considered in terms of the potential for disturbance that may arise from their proposed site investigations. The supporting ecological and environmental information furnished in the current application are likely to contain a significant proportion of that required for this assessment.

Regards

[Redacted]

[Redacted]

—
Aonad na nIarratas ar Fhorbairt
Development Applications Unit
An Roinn Tithíochta, Rialtais Áitiúil agus Oidhreacht
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
www.housing.gov.ie



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

From: [REDACTED]@transport.gov.ie>
Sent: Thursday 2 February 2023 12:16
To: [REDACTED]@housing.gov.ie>
Cc: [REDACTED]@transport.gov.ie>
Subject: RE: FS007161 Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde Rocks Offshore Wind Farm

Good day [REDACTED],

After careful consideration the Marine Survey Office has no objection to the above referenced application from a navigational safety perspective.

However the following points shall be of note;

1. The Licensee shall, through consultation and agreement with the Department of Transport, Marine Survey Office and Commissioners of Irish Lights, arrange for the publication of a Marine Notice through the Maritime Safety Policy Division.
2. The promulgation and frequency of Navtex and radio broadcast warnings shall be agreed in advance with the Irish Coast Guard for the duration of the license period.
3. The marking and lighting of any moored instruments shall be carried out in consultation with the Marine Survey Office and Commissioners of Irish Lights. Lighting and marking shall be compliant with International Association of Aids to Navigation (IALA) requirements. Information regarding the position of any markings which create a hazard to navigation shall be promulgated to the mariner via publication of a marine notice and all available means appropriate.
4. The Licensee shall ensure all appropriate measures are taken for the duration of any on-site activity to ensure the safety of navigation is maintained. Any hazard to safe navigation shall be easily identifiable to all mariners operating within or in the vicinity of the license area.
5. All vessels engaged in the above must conform to Irish Certification standards and the vessels be manned by suitably qualified personnel, additionally where equipment is carried an Irish Load line survey may be required. The applicant should contact the Marine Survey Office Dublin for clarification in relation to the above matters.
6. On completion of operations the applicant shall be obliged to inform the United Kingdom Hydrographic Office (UKHO) providing bathymetry data so that appropriate charts can be updated. (Fax: 0044 1823 284077, email: hdc@hdc.hydro.gov.uk)

Regards,

[REDACTED]
*Nautical Surveyor
Marine Survey Office*

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]

www.gov.ie/transport

Scierde Rocks Offshore Wind Farm

XODUS House

50 Huntly Street,

Aberdeen

AB10IRS, UK

26TH January 2023

Re: Scoping Request for the proposed Scierde Rocks Offshore Wind Farm Site Investigations off Co Galway, FS007161 .

Dear Sir/Madam,

The following are the comments from this Division in relation to the proposed development:

If the proposed development will involve the felling or removal of any trees, the developer must obtain a Felling License from this Department before trees are felled or removed. A Felling Licence application form can be obtained from **Felling Section, Department of Agriculture, Food and the Marine, Johnstown Castle Estate, Co. Wexford**. Email: felling.forests@agriculture.gov.ie or Web gov.ie - [Tree Felling Licences \(www.gov.ie\)](http://gov.ie)

A Felling Licence granted by the Minister for Agriculture, Food and the Marine provides authority under the Forestry Act 2014 to fell or otherwise remove a tree or trees and/or to thin a forest for silvicultural reasons. The Act prescribes the functions of the Minister and details the requirements, rights and obligations in relation to felling licences. The principal set of regulations giving further effect to the Forestry Act 2014 are the Forestry Regulations 2017 (S.I. No. 191 of 2017).

The developer should take note of the contents of **Felling and Reforestation Policy** document which provide a consolidated source of information on the legal and regulatory framework relating to tree felling; gov.ie - [Tree Felling Licences \(www.gov.ie\)](http://gov.ie) As this development is within forest lands, particular attention should be paid to deforestation, turbulence felling and the requirement to afforest alternative lands.

In order to ensure regulated forestry operations in Ireland accord with the principles of sustainable forest management (SFM), as well fulfilling the requirements of other relevant environmental protection laws, the Department (acting through its Forest Service division) must undertake particular consultations, and give certain matters full consideration during the assessment of individual Felling Licence applications. This includes consultation with relevant bodies, the application of various protocols and procedures (e.g. Forest Service Appropriate Assessment Procedure), and the requirement for applicants on occasion to provide further information (e.g. a Natura Impact Statement).

Consequently, when the Forest Service is considering an application to fell trees, the following applies:


1. The interaction of these proposed works with the environment locally and more widely, in addition to potential direct and indirect impacts on designated sites and water, is assessed. Consultation with relevant environmental and planning authorities may be required where specific sensitivities arise (e.g. local authorities, National Parks & Wildlife Service, Inland Fisheries Ireland, and the National Monuments Service);

2. Where a tree Felling Licence application is received, the Department will publish a notice of the application before making a decision on the matter. The notice shall state that any person may make a submission to the Department within 30 days from the date of the notice. The notices are published online at: [gov.ie - Felling Licence Applications \(www.gov.ie\)](http://gov.ie - Felling Licence Applications (www.gov.ie))
3. Third parties that make a submission or observation will be informed of the decision to grant or refuse the licence, and on request, details of the conditions attached to the licence, the main reasons and considerations on which the decision to grant or refuse the licence was based, and where conditions are attached to any licence, the reasons for the conditions. Both third parties and applicants will be also informed of their right to appeal any decision within 14 days to the Forestry Appeals Committee. Felling Licence decision are published online at: [gov.ie - Felling Licence Decisions \(www.gov.ie\)](http://gov.ie - Felling Licence Decisions (www.gov.ie))

It is important to note that when applying to a **Local Authority**, or **An Bord Pleanála**, for planning permission where developments are:

- a) subject to an EIA procedure (including screening in the case of a sub-threshold development) and any resulting requirement to produce an EIAR; and/or
 - b) subject to an Appropriate Assessment procedure (including screening) and any resulting requirement to a Natura Impact Statement (NIS); and
 - c) the proposed development in its construction or operational phases, or any works ancillary thereto, would directly or indirectly involve the felling and replanting of trees, deforestation for the purposes of conversion to another type of land use, or replacement of broadleaf high forest by conifer species,
1. that there is a requirement inter alia under the EIA Directive for an overall assessment of the effects of the project or the alteration thereof on the environment to be undertaken, including the direct and indirect environmental impact of the project;
- and
2. pursuant to Article 2(3) of the EIA Directive, the Department of Agriculture, Food and the Marine strongly recommends that, notwithstanding the fact that a parallel consent in the form of felling licence may also have to be applied for, any EIAR and/or NIS produced in connection with the application for planning permission to the Local Planning Authority or An Bord Pleanála, should include an assessment of the impact of and measures, as appropriate, to prevent, mitigate or compensate for any significant adverse effects direct or indirect identified on the environment arising from such felling and replanting of trees, deforestation for the purposes of conversion to another type of land use, or replacement of broadleaf high forest by conifer species.
 3. Please note that there must be absolute spatial consistency between the felling licence areas submitted to DAFM (second authority) and all related planning documents submitted to the first authority in respect of the felling area(s)

Yours sincerely,



Felling Section
Department of Agriculture, Food and the Marine

Johnstown Castle
Co Wexford

Department of Agriculture, Food and the Marine (DAFM) Ref: FW.12.25:
Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde
Rocks Offshore Wind Farm - (DHLGH Ref: FS007161)

Department of Agriculture, Food and the Marine (DAFM) Ref: FW.12.26: -
Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde
Rocks Offshore Wind Farm Export Cable Corridor - (DHLGH Ref: FS007543)

Sea-Fisheries observations

CC: foreshore@agriculture.gov.ie

- 1) The reports on the environmental impacts of the proposed site investigations note that inshore commercial fisheries (including inshore demersal fishing, line fishing, net fishing for crayfish and pot fishing for crab species and lobster) can take place in and near the two proposed Foreshore Licence Areas (FLAs). However, the reports also state that there is no record of fishing in the FLAs based on vessel monitoring system (VMS) data from 2014-2018 (FS007161) and 2016-2019 (FS007543). The lack of VMS data regarding fishing in or near the two FLAs should not be considered representative of the activities of the inshore segment of the fishing fleet. There are up to 1,700 vessels in the inshore segment, which is defined as sea-fishing boats less than 12 metres in length. Such vessels are not required to carry VMS systems, hence the lack of VMS data to show the sea-fishing activities of inshore vessels. This lack of VMS data cannot be taken to mean that inshore vessels do not fish in or near the two FLAs.
- 2) DAFM strongly advise that the applicants consult with the organisations listed at point 7) hereunder and the Marine Institute (MI) for further information on the fishing which actually takes place in or near the two FLAs.
 - Certain inshore boats are required to carry GPS monitoring systems, which are provided by the MI. That agency may have gathered data from these GPS units that could be relevant to the proposed FLAs.
 - The MI confirmed to DAFM that it has observer data for each year since 2015 for pot fisheries on the Galway, Connemara and Clare coasts as well as older data for the Clare coast. Lobster and other fisheries are important in all of this area. Shrimp fishing is important in inner Galway Bay. There are oyster beds in the south east of Galway Bay and there is an ongoing EMFF/EMFAF project on restoring oyster beds in the area. In addition, VMS data for vessels more than 12 metres in length indicates important trawling grounds west and south of Aran.
 - The MI advised DAFM that there is an association of inshore fishers in Galway Bay (GBIFA) and it provided a 2010 report on those fishers' activities (attached). While this report is dated, the MI confirmed that the current general distribution of fishing in the area is the same as it was then.
 - The MI publishes information on inshore fisheries in reports such as its [Shellfish Stocks and Fisheries Review 2021](#) and the [Article 6.2 \(Habitats Directive\) Risk Assessment](#) of fisheries in SACs on the south and west coasts.

- 3) Inner Galway Bay is a Special Area of Conservation (SAC) and a Special Protection Area (SPA). The MI advised that the foreshore licence application area (proposed cable route) does not encroach onto the SAC, but it is unclear what works will be required on the foreshore at landfall (Kilcolgan Point). There is foreshore also east of this Point, an area potentially sensitive to disturbance with respect to birds in the SPA.
- 4) DAFM welcomes the appointment of a Fisheries Liaison Officer to engage with the fishing community to ensure effective communications during the planning and execution of the proposed surveys. DAFM would urge that timely consultation and active engagement with the representatives of inshore fishers take place as early as possible and on an ongoing basis to ensure optimum coordination of activities and to limit disturbance (and avoid displacement) of inshore fishing activity as much as possible during the proposed surveys. Consultation should follow the good practice Engagement Standards being developed by the Seafood/Offshore Renewable Energy (ORE) Working Group. An open and clear dialogue with fishers' representatives should assist in reducing the potential for confusion and friction with fishing stakeholders.
- 5) As the proposed development of this and other ORE projects continue, it is essential that the sea-fisheries sector is recognised and given a high priority as a long-standing, pre-existing, and traditional activity in the marine environment. Fishers are primary food producers dependent upon certain marine areas which are particularly important for food production. This primary production is critical to supplying the downstream indigenous seafood processing and export industries and in sustaining the livelihoods of coastal communities. The importance of these primary and secondary food production activities is reflected in the Government's Food Vision 2030 policy.
- 6) The potential impacts of ORE projects on commercial sea-fishing and aquaculture activities need to be considered and evaluated at each stage of the consent process. Where commercial sea-fishing (and aquaculture activities) may be impacted, it is essential that early, effective and ongoing engagement takes place with stakeholders to afford them an opportunity for input/preparation. The principles in the National Marine Planning Framework (NMPF) of avoiding, minimising, or mitigating impacts on access to existing activities should be followed.
- 7) Organisations representing inshore vessels (<12 metres in length operating within six nautical miles of the shore) include:
- The National Inshore Fisheries Forum (NIFF): <https://inshoreforums.ie/niff/>;
 - The West Regional Inshore Fisheries Forum (WRIFF): <https://inshoreforums.ie/west-overview/>;
 - The Irish Islands Marine Resource Organisation (IIMRO): <https://www.iimro.org/>;
 - The National Inshore Fishermen's Association (NIFA): <https://inshore.ie/>.

ENDS

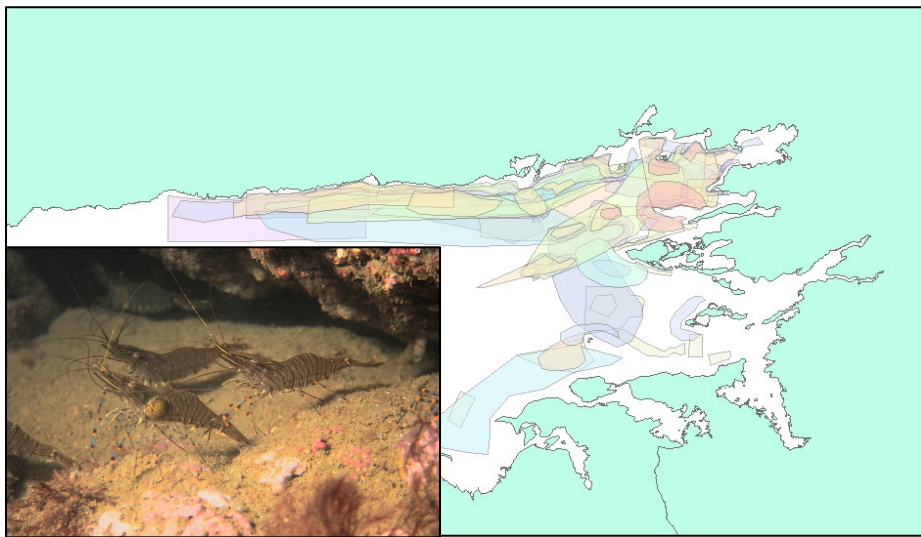
28/02/2023

The Crustacean Fisheries of Inner Galway Bay

[REDACTED]
(Fisheries Science Services, Marine Institute)

&

[REDACTED]
(Fisheries Development Division, BIM)



(Shrimp, Palaemon serratus, in its natural habitat off the north shore of Tawin Island, Galway Bay; the shrimp in the foreground is parasitized by a Bopyrid isopod (picture by Jonathan White) and shrimp fishing 'territories' in Galway Bay in the background)

(A report to the Galway Bay Inshore Fishermen's Association, GBIFA)

May 2010

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Background

Commercial sea fisheries have operated in Galway Bay for over 200 years. Over the past 30 years the profile of fishing activity in the Bay has switched from pelagic, demersal, oyster and salmon fisheries to pot fisheries for crustaceans and a limited fishery for clams and scallops. This switch coincided with a decline in whitefish and oyster stocks in the Bay, closure of the salmon fishery in 2006 and the development of a commercial shrimp fishery in the early 1970s.

Today there are approximately 26 boats fishing in the Bay. They rely almost exclusively on shrimp, lobster and velvet crab stocks. Smaller volumes of spider crab and brown crab are landed and one or two vessels may fish scallops and clams using dredges.

Today the inner Galway Bay crustacean fisheries face a number of pressures, constraints and threats

- A large proportion of the fishing ground has been designated as a Special Area of Conservation (SAC) and a Special Protection area for Birds under the EU Habitats and Birds Directives respectively
- The proposed development of the docks area of Galway City may lead to some loss of shrimp fishing grounds
- Market prices for shrimp and lobster have declined in recent years
- Poor management of the fishery exposes fishermen to
 - o Increased competition internally between vessels for fishing grounds
 - o Risk of influx of new operators into the fishery
 - o The risk of recruitment failure in the shrimp stock. Although there is no evidence of recent recruitment failure uncontrolled fishing effort on this stock is a high risk strategy.

The Galway Bay Inshore Fishermen's Association

The Galway Bay Inshore Fishermen's Association (GBIFA) was founded in early 2010, by the fishermen, with the immediate objective of obtaining the collective view of its members on the pressures and threats that the fisheries were experiencing and to identify how these pressures might best be resolved. Following meetings between the Association and the Marine Institute and BIM terms of reference, describing a workplan for 2010, were drawn up;

1. Issues relevant to the members in 2010 are
 - the docks development
 - designation of the area as an SAC and SPA
 - management of fisheries for the benefits of members
 - improving the market prices for fish landed by the members
2. The Association, with the assistance of BIM and MI, will develop a profile of the fishing activities of its members so that an economic and social value can be put on the fishery that can be used as a basis for developing positions in relation to the issues in 1 above (this is the subject of this report)
3. The Association will work progressively towards development of a fishery plan that will be of benefit to the members and which will assist the Association in complying with Article 6 of the Habitats Directive. The plan will also consider how the balance of fishing costs, catch rate and market price can be optimised for the benefit of the members
4. The Association will seek funding, where available, to strengthen its capacity particularly in the area of marketing

This report quantifies the economic and social value of the fishery, maps the location of each of the fisheries in detail and describes the collective views of all fishermen operating in the Bay on the main issues currently facing the fishery and how these issues can be resolved. The report provides information to the members of GBIFA necessary for the resolution of issues they identify and is also important preparatory work for any fishery management plan(s) that may be developed for the fishery by the Association in the future.

The Inner Galway Bay Area

The Inner Bay, inside the Black Head to Spiddal line is 216km² in extent (Figure 1). The area of ground suitable for crustacean pot fisheries is, however, much less than this as these fisheries are confined to shallow water areas (generally less than 20m in depth) along the northern, southern and in particular the eastern shores of the Bay. The seabed in these shallow areas consists of mud, sand, cobble and reefs.

Residual currents in the Bay are westward in direction along the north shore driven by the surface flow of water from the River Corrib and eastwards on the south west area of the Bay. A number of smaller rivers drain into the Bay on its eastern shores. The eastern and southeastern shores have in the past supported major oyster fisheries.

The sub-tidal portion of the inner Galway Bay SAC occupies an area of 81km² or 37% of the inner Bay area and the SPA occupies an area of 75 km² or 35% of the inner Bay. The SAC and SPA overlap and essentially occupy the same area of the Bay.

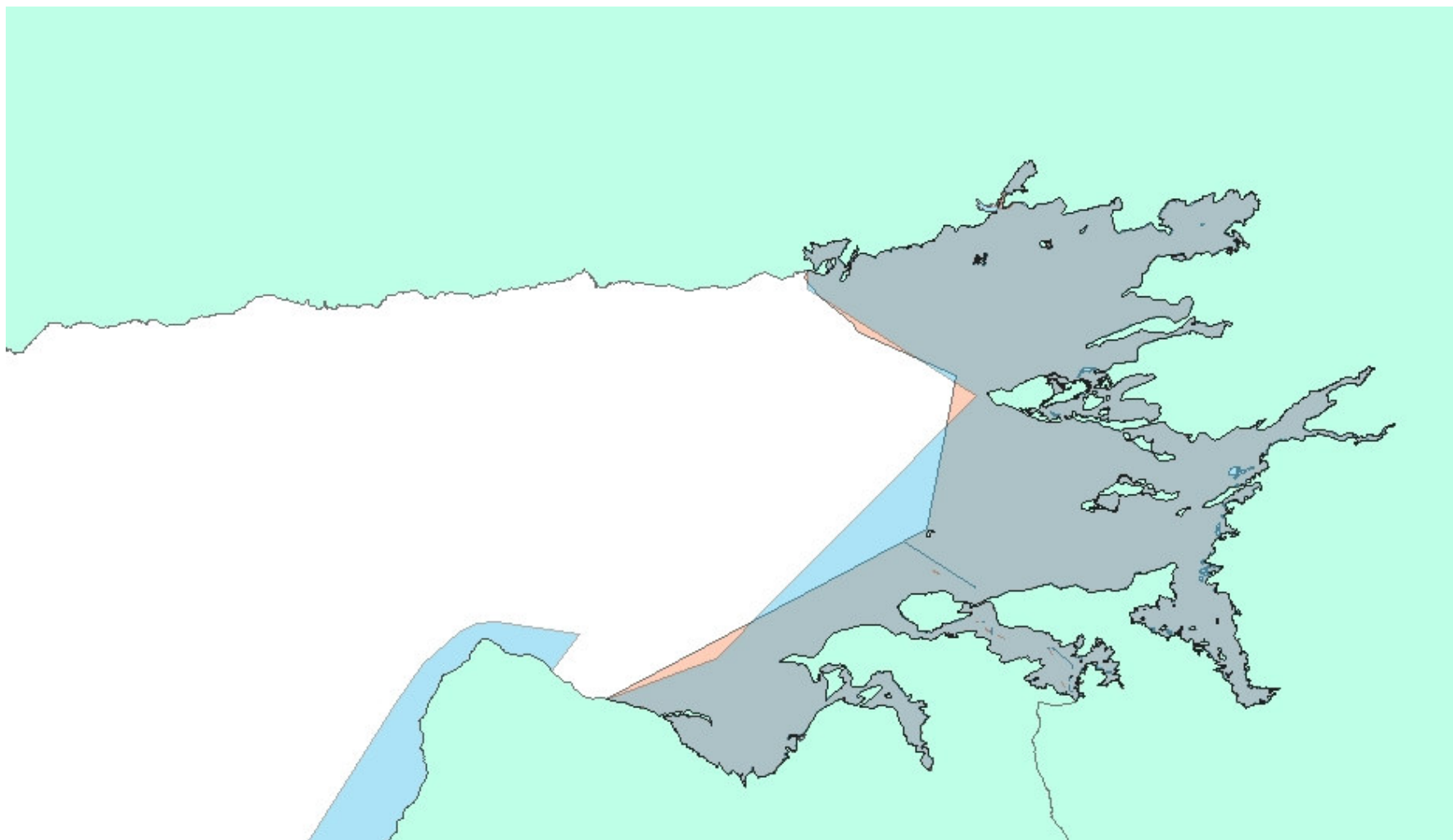


Figure 1. Inner Galway Bay (defined here as the area east of a line connecting Black Head in the south to Spiddal in the north) showing the Special Area of Conservation (blue) and Special Protection Area for birds (brown) and areas where the SAC and SPA overlap (grey).

Legislation governing the lobster, shrimp and velvet crab fishery in Galway Bay

Existing legislation impinging on the crustacean fisheries in the Bay include regulations on minimum landing sizes, a prohibition on landing lobsters with v-notched or damaged tails and a closed season for shrimp (May-August).

All commercial vessels must be licenced in the polyvalent or potting segment of the national fleet.

In addition the EU Habitats and Birds Directives require the fishery does not impact on the long term integrity of the habitats and species, including birds, of the inner part of the Bay which is designated under these directives. SI 346/2009 enables the planning of fisheries within or close to such designated sites with the objective of ensuring these fisheries are compliant with the Directives (Table 1)

Table 1. Legislation impinging on crustacean fisheries in Galway Bay

Legislation	Purpose	Effect
Closed season for shrimp (235/2006)	To prohibit fishing for shrimp during the closed season to allow juvenile shrimp to grow	No fishing during May, June or July
Minimum landing size of lobster (850/98/EC)	Prohibit the landing of small lobsters and to prevent growth overfishing	Lobsters less than 87mm carapace length cannot be landed
V-notched lobsters (234/2006)	Prohibit the landing of lobsters with v-notched or damaged tails	Lobsters with v-notch marks or other damage to the tail fan must not be landed
The Habitats Directive (92/43/EEC) European Union (Natural Habitats) regulations S.I. 94/1997 European Union (Natural Habitats) amendment regulations S.I. 233/1998 European Union (Natural Habitats) amendment regulations S.I. 378/2005	To protect the conservation status of particular habitats and flora and fauna in Special Areas of Conservation (SAC) designated under the Directive	The impact of fisheries on the habitats or species in the SAC must be assessed through appropriate assessment. Fishing activity must not have long term impacts on the habitats or species within the SAC
The Birds Directive (79/409/EEC) S.I. 94/1997	To protect the conservation status of bird species, their critical habitats and their populations in Special Protection Areas (SPAs)	The impact of fisheries on bird populations in the SPA must be assessed through appropriate assessment. Fishing activity must not have long term impacts on bird habitats or species within the SPA
European Union (Habitats and Birds), Sea-Fisheries) Regulations 2009 , S.I. 346/2009	To enable planning and management of fisheries with respect to their impact on the environment where such fisheries occur within SACs or SPAs (collectively Natura sites) designated by the Habitats and Birds Directives.	Fisheries activities where they occur wholly or partially within SACs or SPAs and for the purpose of assessing their impact on the conservation status of those areas may be subject to fishery plans. Vessels operating under such plans may come under additional regulation as outlined in a Natura Declaration and may be required to hold a Natura Permit to operate in such a fishery.

Methods

To obtain information on the fishery a questionnaire was developed (Annex I) and its contents agreed with the fishermen prior to undertaking any data collection. The questionnaires were completed by face to face interviews with fishermen. These interviews, completed during April and May 2010, were therefore partially structured by the questionnaire but in addition it was possible to construct a collective narrative from the conversations with fishermen which provided information on issues relevant to the future management of the fishery. Twenty six interviews were completed which involved all vessel owners fishing crustaceans in the Bay.

Profile of the fishery

Vessels and capital investment

Twenty six potting vessels are or have recently operated in the Bay (Table 2). These are small vessels all below 11 GTs and mostly below 7 GTs. Fourteen are open vessels and 12 are decked or half decked. The total fleet capacity is 97GTs and 865kws. The ratio of kws to GTs is 8.5Kws per GT of vessel (Figure 2). Sixteen of the vessels have GPS and 20 have sounders. The total number of operators (skippers and crew) is 45 and an average of 1.8 operators per vessel.

Capital invested in fishing boats may be in the region of €1million using an average vessel purchase price of €10,000 per GT (based on national statistics from the BIM sentinel vessel data). Capital invested in 6350 shrimp pots and 2400 lobster pots, which is a minimum estimate of the number of pots in the Bay, is at least €290,000. The number of pots in the bay is, however, higher than this.

Capital invested in GTs and KWs, based on 2009 prices and omitting vessels with pot only licences, which are not transferable, did not require investment and have no asset value, is €412,000.

Total investment in capital is, therefore, in the region of €1.7million

Table 2. Profile of vessels in inner Galway Bay

	Quantity
Open vessels	14
Half deck	4
Decked	8
Total GTs	96.8
Total Kws	865.7
Have GPS	16
Do not have GPS	10
Have sounder	20
Do not have sounder	6
Total crew	45.5

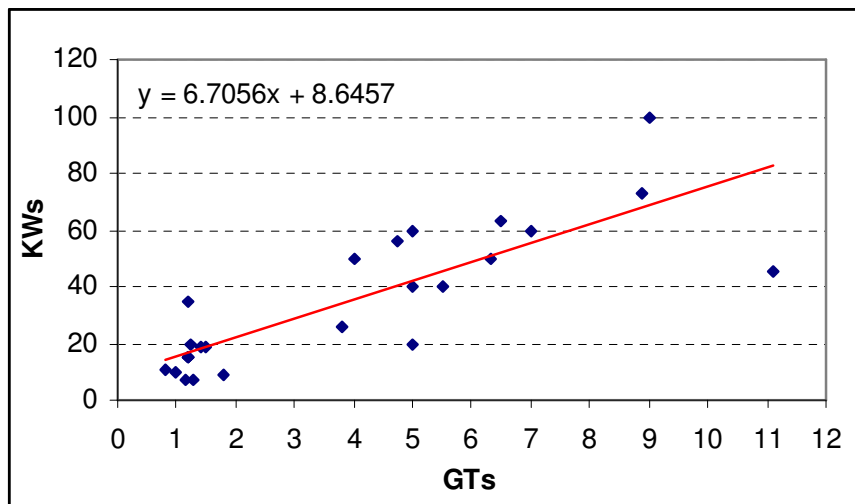


Figure 2. Relationship between GTs and KWs in the inner Galway Bay fleet.

Skippers and crew

The current operators are highly experienced fishermen. They have an average experience of 27 years in fishing. A number of them were responsible for the initial development of the shrimp fishery in the 1970s and still continue in the fishery today.

All recent entrants to the crustacean fishery, of which there are few, come from families who have strong tradition in the fishery or from other fisheries in the outer Bay (Figure 3). Twenty of the 26 fishermen interviewed have been fishing in Galway Bay for over 20 years although they may previously have fished other species such as salmon, oyster and whitefish. Nevertheless, since 1990 there has been a significant increase in the number of vessels targeting shrimp, as shown below, as opportunities in other fisheries declined and as fishermen in the lobster fishery expanded into shrimp.

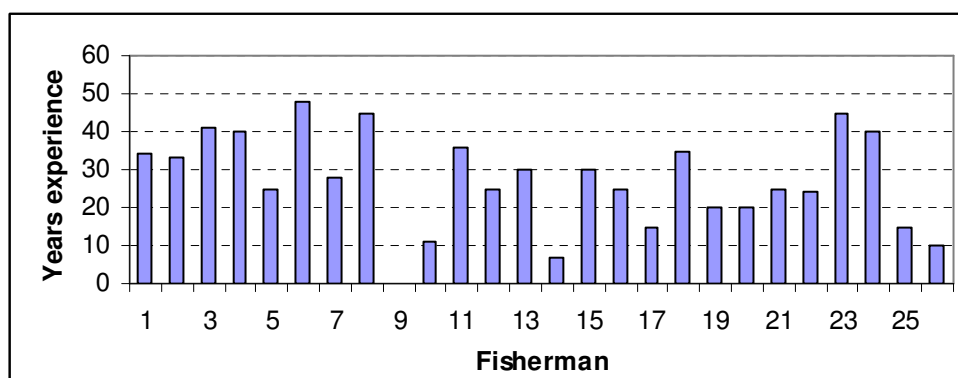


Figure 3. Profile of fishing experience of fishermen in Galway Bay

Landings, value and earnings

Annual landings (tonnes) of shrimp, lobster and velvets in the period 2005-2010 averaged 46, 18 and 42 tonnes respectively (Table 3). These landings had a cumulative value of €0.98million. The annual value of the landings from the inner Galway Bay fishery is, therefore, about €1million when spider, brown crab and prawns are included. These values are based on financial data or volume of landings data obtained during interview and subsequently converted to value, using unit values of €12, €14 and €2.5 per kg for lobster, shrimp and velvet crab respectively.

Official landings statistics for shrimp in county Galway, including Galway Bay, Connemara and smaller shrimp fisheries in Cleggan and Ballinakill in 2008 was 45 tonnes. The data from the questionnaires suggest that the official data underestimate the landings by at least 50%.

Table 3. Annual volume and value of landings of shrimp, lobster and velvet crab from inner Galway Bay.

	Volume (tonnes)	Value
Shrimp	45.8	€540,000
Lobster	18.3	€331,000
Velvets	42.4	€106,000
Total	106.5	€977,000

Effort and earnings

The annual value of the landings for a vessel is generally positively correlated with the number of days fished by the vessel. Annual value of the landings of vessels fishing around 50 days per year is approximately €20,000. However, earnings by vessels fishing between 100-150 days per annum vary between €15,000 and €80,000. The value of the landings of vessels fishing over 250 days is between €80,000 and €100,000 (Figure 4). The relationship between days at sea and annual value of the landings suggests average gross earnings per vessel per day of €307.

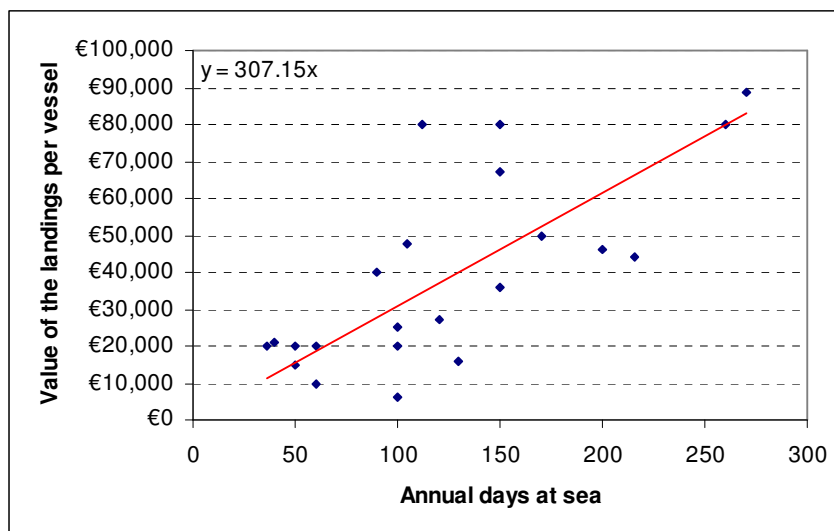


Figure 4. Relationship between the annual value of the landings of a vessel and the annual number of days fished by the vessel.

The number of crew per vessel varies from 1-3. The earnings per fisherman (assuming equal share between crew and skipper/owner) per day, obtained by dividing the annual earnings by the product of the days at sea and the number of crew, ranges from €100-500 but is generally between €100-250 and averages €203 per man per day (Figure 5). Fishermen operating on vessels with high annual effort (and which generally have 2-3 crew) do not earn more per day than fishermen fishing solo and who may fish for less than 100 days. However, annual income per fisherman is related to the number of days the vessel operates (Figure 6).

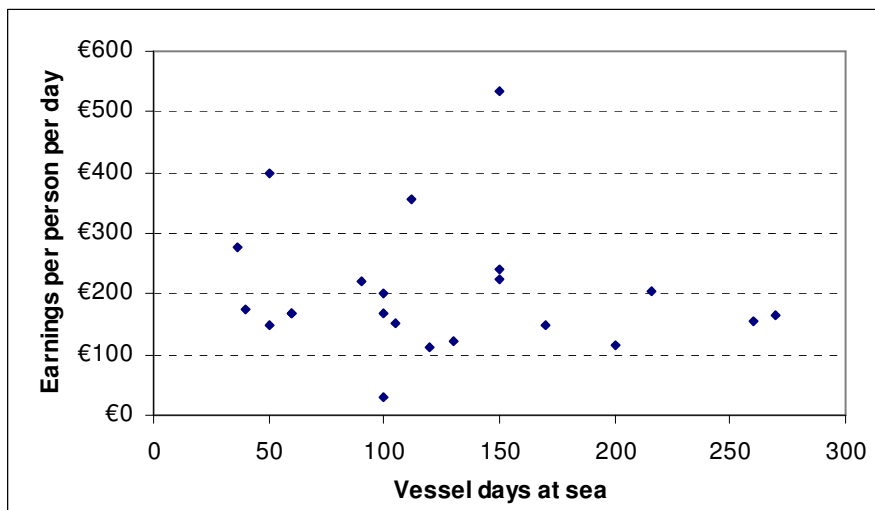


Figure 5. Relationship between the earnings per fisherman per day and the annual number of days fished by the vessel.

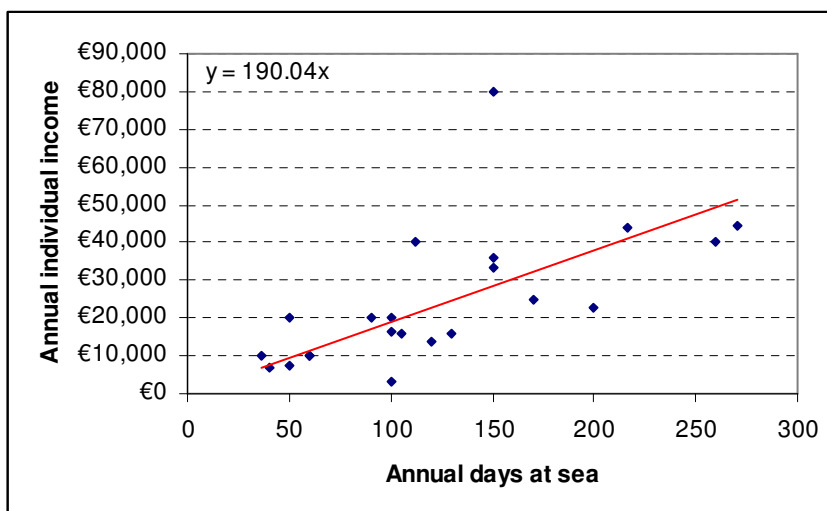


Figure 6. Annual income per fishermen in relation to annual days fished

Fishing activity

Annual activity

The lobster and velvet crab fisheries are open year round. The shrimp fishery is closed during May, June and July.

The fleet is active throughout the year and particularly during the period August to January in the shrimp fishery. The number of days fished per year and the number of months during which a vessel is active has declined consistently since 1990. In recent years (2005-2010), on average, a vessel may operate for 8.5 months and fish for 118 days per year and fish for 8.6 hours per day. In the periods 1990-1995 the number of days fished per year averaged 191 and 11.1 months (Table 4).

Although the shrimp fishing season legally extends from August 1st to May 1st only 2 vessels reported fishing shrimp later than the end of February. Fishing for shrimp ceases towards the end of February for different reasons however; in some areas the abundance of large shrimp is low and the catches are dominated by very small shrimp. In other areas berried females pre-dominate and some fishermen stop fishing when this occurs.

Eight of the vessels fish for 1 species (shrimp) only. Ten vessels target 3 (lobster, shrimp, velvets) species. Some vessels also catch spider crab, brown crab and prawns.

Eighteen of 26 boat owners were previously active in the salmon, whitefish or gillnet fisheries but are now reliant solely on crustaceans.

Table 4. Activity profile of Galway Bay vessels in the period 1990-2010

Time period	Daily hours	Days per year	Months fished per year	Number of crustacean species targeted
1990-1995	9.18	191	11.10	2.55
1995-2000	9.13	158	10.33	2.31
2000-2005	8.75	127	9.21	2.20
2005-2010	8.58	118	8.57	2.33

Fishing effort

Shrimp

The average number of pot hauls per vessel per day in the shrimp fishery in the period 2005-2010 ranged from 120-500 pots per boat per day. The average number of pots hauled per vessel per day has been relatively stable since 1990 increasing from 250 in 1990-1995 to 289 in the period 2005-2010 (Table 5, Figure 7).

The potential total number of pot hauls per day in the shrimp fishery (i.e. if all vessels fished on the same day) has increased significantly during the period 1990-2010 from 2540 pots per day for the fleet in the period 1990-1995 to 6350 in the period 2005-2010.

Average gear set time or soak time has remained stable at between 3.3 and 3.8 days.

The number of pots owned by skippers ranges from 150-1000. A total figure for the number of pots owned by the fleet has not been estimated but it is greater than 6350 (which is the number of pot hauls that can be hauled by the fleet in a day). This figure was estimated directly from the questionnaire data.

Almost all shrimp fishermen use herring to bait shrimp pots.

Lobster

The average number of pot hauls per vessel per day in the lobster fishery in the period 2005-2010 ranged from 60-300 pots per boat per day. The average number of pots hauled per day remained relatively stable at 160-174 pots during the period 1990-2010 (Table 5, Figure 7).

The potential total number of pot hauls in the lobster/velvet crab fishery increased from 1595 during the period 1990-1995 to 2785 during the period 2000-2005 and then declined to 2400 pots during the period 2005-2010 mainly due to a small decline in the number of vessels participating in the fishery in recent years. There has been a significant increase in lobster gear soak time from 3.1 days in 1990-1995 to 4.6 days in 1995-2000.

Most lobster fishermen use fish offal to bait pots. Three of the 26 operators catch their own bait.

Table 5. Average number of pot hauls per vessel per day and total pot hauls of all vessels per day in the shrimp and lobster/velvet fishery between 1990-2010.

Shrimp	1990-1995	1995-2000	2000-2005	2005-2010
Average pots per day	254	260	271	289
Total pots per day	2540	4155	5150	6350
Number of boats	10	16	19	22
Average soak time (days)	3.8	3.3	3.4	3.8
Lobster/Velvets				
Average pots per day	160	170	174	171
Total pots per day	1595	2205	2785	2400
Number of boats	10	13	16	14
Average soak time (days)	3.1	3.2	3.7	4.6

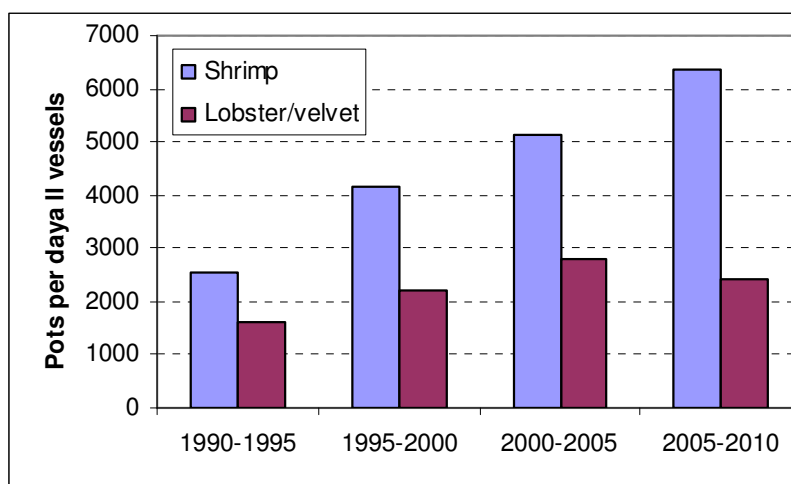


Figure 7. Total number of pots hauls per day in the shrimp and lobster fleet in Galway Bay in the period 1990-2010.

Individual vessel fishing grounds

During interview each fisherman was asked to identify the areas in the Bay where they fish for shrimp, lobster and velvet crab. This was done either by drawing the areas as shape files in a geographic information system (GIS) using the guidance of the fisherman or drawing in the areas on hard copy maps and later transferring these areas to the GIS.

The result of the mapping of fishing locations shows the overall distribution of fishing activity on each species and also the overlap of individual vessel fishing areas.

The total area of the shrimp fishery is 108km² and is concentrated on the north and east shores of the Bay with less intensive activity on the south shore (Figure 8). The individual fishing grounds of the vessels overlap in all areas to the extent that the individual areas cannot be said to be ‘territories’ as such. There are few, if any, agreed borders or demarcation lines between vessels on the north and east coasts of the Bay. However, there is limited cross over between vessels on the north, south and east shores although vessels operating out of Galway fish both to the south and to the west and there is generally more ‘crowding’ in the north east corner of the Bay.

Some vessels are precise about where pots are placed and have discrete areas which may be used at different times of year or depending on weather conditions. For others the areas described are larger and less focused on particular sub-sea features or depth contours. Fishing occurs both on soft and weed covered hard ground. Typically larger and older shrimp are found on harder ground.

Not all the areas are used all the time. Gear is moved to relatively deeper water later in the season, as shrimp move into offshore to overwintering grounds or in bad weather.

The total area of the lobster fishery is 99 km² and is concentrated on northern, eastern and southern shores. A lot of targeted lobster fishing is concentrated around sub-sea

reefs and ledges and on rough ground. There is, however, a lot of overlap with the shrimp fishery.

The intensive overlap in fishing areas between vessels and the high levels of fishing effort (pots) suggests that there is a high level of competition for good fishing ground. However, most fishermen consider that the grounds they fish (and have access to) is good ground for the particular species that they may be targeting i.e. they have not been excluded from good ground (Table 6). Fishermen fishing on poor ground for a particular species do so because that is the nature of the ground they have always fished or it's close to their home pier. For instance the poorest ground for shrimp is on the south shore of the Bay but these fishermen do not fish on the east or north shores. Lobster fishermen fishing poor or limited ground on the north shore do not fish on the south shore.

Table 6. Number of fishermen who consider that the grounds they target for each species is good, average or poor

	Shrimp	Lobster	Velvets
Good	9	8	8
Average	3	3	1
Poor	3	1	2

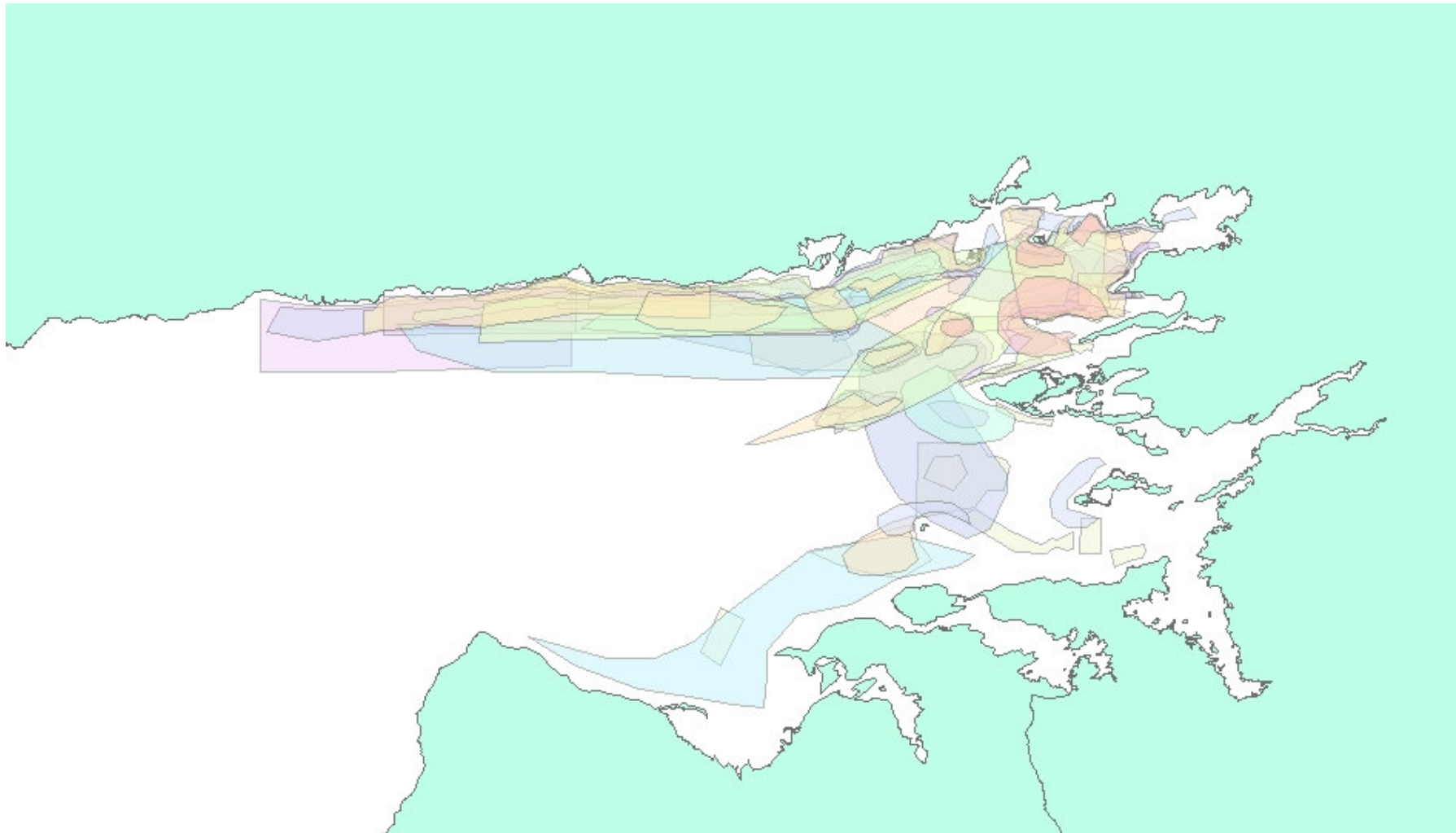


Figure 8. Individual vessel shrimp fishing areas shown as partially transparent superimposed layers.

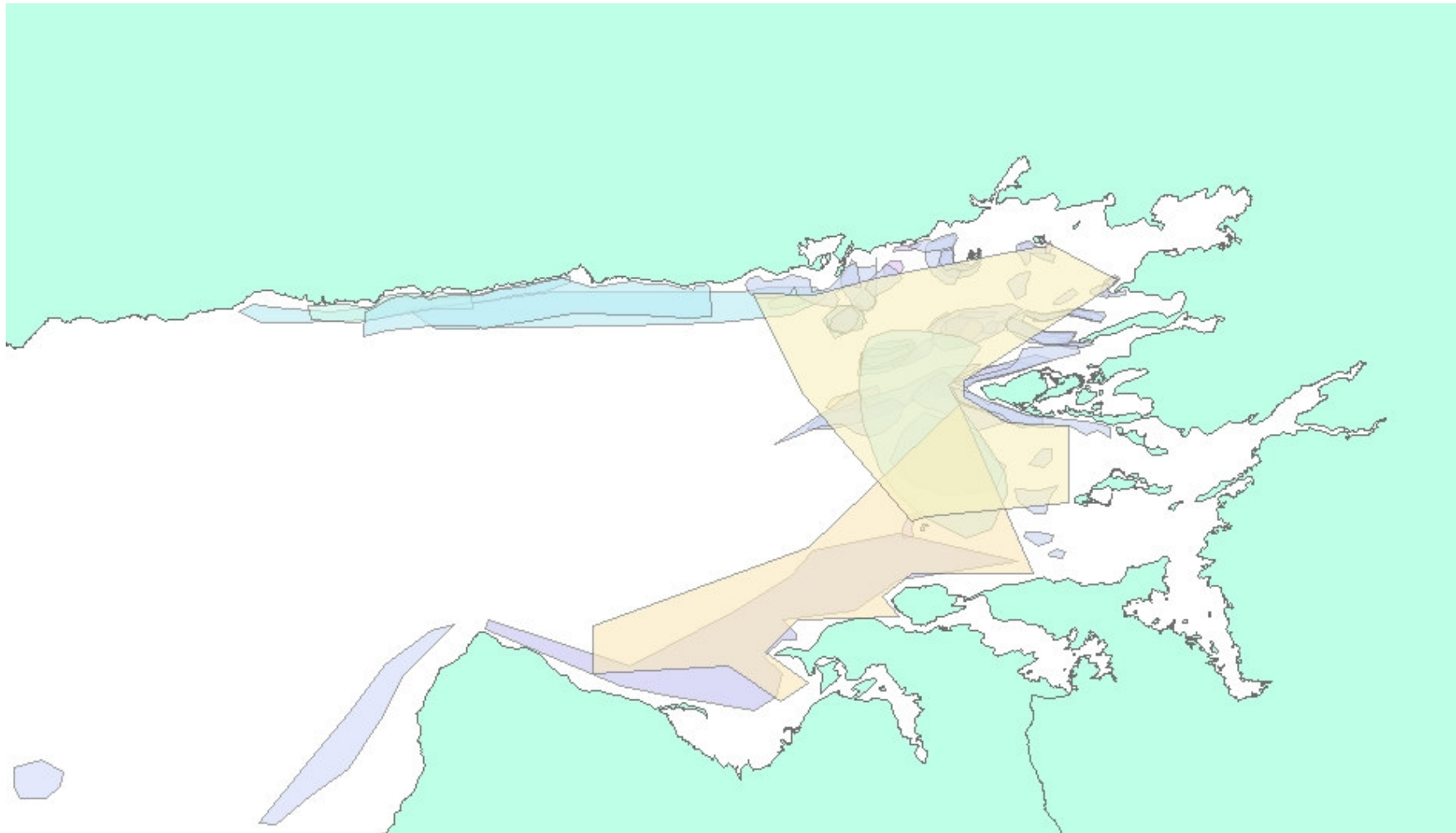


Figure 9 Individual vessel lobster/velvet crab fishing areas shown as partially transparent superimposed layers

Views on the economic performance and management of the shrimp, lobster and velvet crab fisheries

Potential for improvement

Market price, costs and catch per unit of effort determine the net profit per effort. Twenty of 23 fishermen, when asked to rank the potential for improvement in market price, cost reduction or catch rate, indicated the biggest room for improvement was in the market price. No fishermen put cost reduction as the first priority in order to improve net profit. Fifty percent put improvement in catch rate as first or second priority (Table 7).

Table 7. Views expressed by fishermen on the need and potential for improvement in market, fishing costs and catch rate.

Potential for improvement	Market	Costs	Catch rate
First	20	0	3
Second	2	12	8
Third	1	10	11
Total responses	23	22	22

Twelve of 23 fishermen said that fishing was not profitable every day they fished i.e the costs were greater than the value of the fish caught on certain days. These fishermen were all referring to the lobster fishery. Shrimp fishing was regarded as profitable every day. Lobster fishing may not be profitable early in the year in particular.

Issues and solutions identified in the shrimp fishery

The stock

Fifty percent of fishermen interviewed suggested that the shrimp stock was stable. Twenty nine percent suggested it was declining (by about 30% for instance) while 21% said it was increasing (Table 8). These apparently conflicting views probably reflect the experiences of fishermen in different parts of the bay where ground type and shrimp abundance may vary. Some fishermen said there were good and bad years but that the introduction of grading (and live discarding) had stabilised catches and that the last poor year was 2002-2003.

Table 8. Number and percentage of fishermen who regarded the shrimp, lobster and velvet fisheries as stable, increasing or declining.

	Shrimp	Lobster	Velvet
Stable	12	11	2
Decline	7	4	11
Increase	5	3	2
<i>Responses</i>	<i>24</i>	<i>18</i>	<i>15</i>
Stable (%)	0.50	0.61	0.13
Decline (%)	0.29	0.22	0.73
Increase (%)	0.21	0.17	0.13

There was a very positive attitude to grading even though fishermen did not think that they were rewarded for providing graded catch to the buyers. Comments on grading included that it stabilised catches, reduced variation in catch between years, it protected the fishery, it was time consuming, it allowed time for shrimp to grow. Discard rates through the grader, which is mainly on a 9mm bar spacing, were reported as 50-60%.

Some fishermen also suggested that shrimp quality had declined; that there were fewer good quality shrimp available as the season progressed and the quality at the start of the season had fallen. Others said there was no change in shrimp quality and if you fished hard ground there were always good quality shrimp available. Others said there was a lot of small shrimp in Dec and Jan and the run of shrimp at this time was lower in recent years. Others find a lot of berried shrimp late in the season.

One fishermen gave a set of sales invoices for the period 1997-2002 (6 seasons) which showed the percentage of each grade in the landings and the price per grade (Figure 10). These data did not show any change in the percentage of each grade in the monthly catch during that time suggesting that the grade structure of shrimp in the catch was stable both during the season and between seasons in the period 1997-2002. No later data are available for comparison.

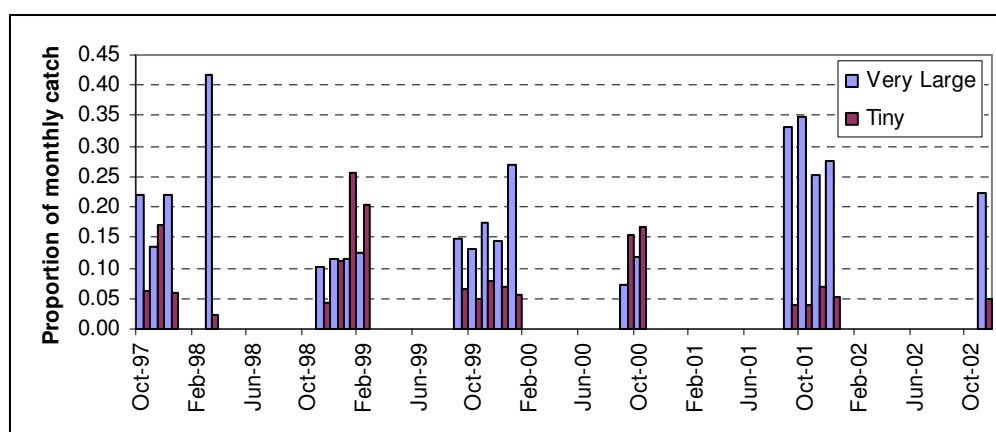


Figure 10. Percentage of 'very large' and 'tiny' commercial grades of shrimp in the monthly landings of 1 fisherman during 6 seasons from 1997-2002.

Fishing effort

Although over 70% of fishermen thought that the shrimp stock was stable at least 18 of 26 fishermen indicated that there were too many pots in the Bay (Table 9). This was in response to the question “What are the 3 problems in the fishery at the moment?” or as a proposed solution to low catches rates or high costs. There were some suggestions as to how to limit pot numbers; 500-600 per boat, 500 per boat, 400 per boat, 800 per boat, 500-600 per boat, 800 per boat, 600-700 per boat. Some fishermen with high numbers of pots suggested that a limit per crew member rather than per boat would be more equitable as these vessels had higher pay costs.

The concern about pot numbers is related to access to ground, competition for ground and fishing costs. The competition for ground makes the fishery more difficult than it should be and increases the costs. It was felt by some that the gear was not being used to catch shrimp as such but in the “anticipation of catching shrimp” such that gear was left on the ground waiting for shrimp to arrive.

Seven fishermen said that the number of boats should be limited as a condition of limiting pots.

A number of fishermen thought that the season started too early. In effect few shrimp are being landed in August although gear is set. Most of the shrimp vessels fish from September to February although the open season extends from August 1st to May 1st.

Fishing costs

No quantitative data on fishing costs were requested in the questionnaire. However, bait is regarded as the highest cost for most vessels although some vessels, in the lobster and crab fisheries in particular, have high fuel bills.

Although not included in the questionnaire, information on the quantity of bait used to haul a given number of pots was obtained in conversation. This suggests that bait costs in the shrimp fishery per pot soak are about €0.2 (i.e. 20 cents to bait a pot). If daily potential effort by all boats in the shrimp fishery is 6350 pot hauls then daily bait costs for the entire shrimp fleet may be in the region of €1270 per day and may be €61,000 per season assuming a 6 month season and two hauls of all pots every week. This is about 12% of the value of the shrimp landings.

Market price

Market price was a concern to a lot of fishermen. In particular the lack of price reward for graded shrimp was disappointing to them as the amount of discarding and time required to grade the catch was significant and costly. Higher prices for graded shrimp was given by buyers after grading was first introduced in 2007 (as is evidenced from BIM logbook data at the time). Now that everybody is grading the buyers seem to be giving a flat price to everybody.

Data from 1 fishermen on prices per grade for 6 seasons between 1997-2002 showed that the market, at that time at least, demanded shrimp of different grades and that the price paid by the market was significantly higher for larger shrimps. At that time the buyers bought all shrimp and graded the catch themselves.

During 1997-2002 there were 4 grades and price increased by about €2-3 per grade but were flat during the season. Prices increased annually from 1997-2001 but fell back in the 2002-2003 season (Figure 11)

There were a number of proposed solutions to the low market prices

- collective selling to a fixed price or to the highest bidder
- bring in more buyers to increase competition for the landings
- land high quality shrimp strategically to the market

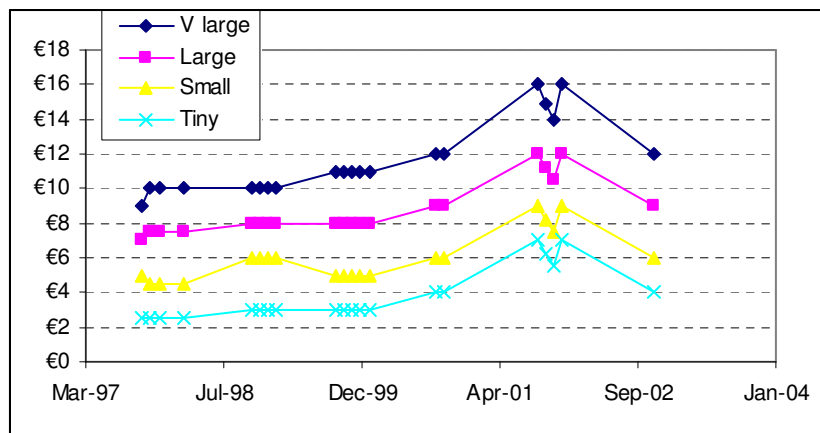


Figure 11. Price of shrimp per grade per month during the 1997-2002 period.

Table 9. Individual fishermen's comments on issues and solutions in the shrimp fishery

Issues	Solutions
Fishery officers	Remove the need for a logbook
Fishing season too long	Delay opening until September
Fishing season too long	Fish from September to January
Fishing season too long	
Fishing season too long	Extend the closed season
High competition for ground	Limit access and gear
High costs	Collective buying, limit gear
High costs	Increase soak time
High costs	Less gear and higher catch rate
Lack of facilities for fishermen	Organise
Low catch rate	Shorter fishing season, limit gear, grade
Low catch rate	Limit gear
Low catch rate	Extend the closed season
Low price for graded shrimp	Price should reflect the grade, agree a max count per grade
Low price for graded shrimp	Price should reflect the grade
Low prices	Sell collectively to a fixed price
Low prices	Grade the catch
Low prices	Sell collectively to a fixed price
Poor market	Collective selling
Poor market	Collective selling
Poor market	Collective selling
Quality of shrimp has declined	Reduce fishing effort, target higher quality shrimp only
Too many pots	
Too many pots	Limit entry and then control pot numbers
Too many pots	
Too many pots	
Too many pots	
Too many pots	Limit entry (full timers only) and pots
Too many pots	Limit entry and then control pot numbers
Too many pots	Limit pots
Too many pots	Limit pots
Too many pots	No extra effort
Too much effort	Limit access and gear
Too much effort	Limit access and gear, closed areas and seasons
Too much gear	

Issues and solutions identified in the lobster fishery

The stock

61% of fishermen thought that the lobster stock was stable and 17% said it was increasing. One fishermen commented on the remarkable consistency in the annual average size of lobsters over the past 10 years (at 1.3lbs) and there were still some large lobsters of 4-5lbs in the catch. On the north shore there are a lot of small lobsters on the ground but this does not necessarily translate into higher catches in the following year or years. One fishermen on the north shore suggested that the catch rate has declined by 40% in the past 10 years. On the south shore there may have been a small decline recently.

V-notching was regarded as a very positive measure. A number of fishermen notch and release lobsters voluntarily. Others notch berried females and do not land berried females at all. Some felt that v-notching should be a mandatory part of the licence.

Some fishermen supported additional technical measures, such as raising the minimum size to 90mm, so that catch rates could be improved.

Fishing effort

Many fishermen also felt that there were too many pots in the lobster fishery and that catch rates were low. Some fishermen fish single pots rather than strings. On the north shore in particular some fishermen said that gear competition was an issue i.e. strings of pots set in deeper water affected catches in shallow water.

Fishing costs

The cost of bait was regarded as high and collective buying of bait proposed as a solution.

Market price

The decline in market price of lobsters was of concern to all fishermen who fished lobsters. The proposed solutions to this were to increase competition among the buyers but also to fish more strategically for the market (suggesting that there would be limited fishing when the market was poor), and to engage in market research and product development (Table 10).

In the lobster fishery, more so than the shrimp fishery, the link between price, fishing costs and fishing effort was more apparent in the questionnaire returns. In the lobster fishery it was thought that fishing costs could be reduced by fishing less and fishing when market conditions were strong. This idea was supported by the responses indicating that the fishery is not profitable all the time. Some suggested that a closed season be introduced.

Table 10 Individual fishermen's comments on issues and solutions in the lobster fishery

Issues	Solutions
Competition for ground	Limit gear
Competition for ground	limit pots,
Decline in price	Fish strategically for the market
Fishing all year round	Fish strategically for the market
High costs	No solution proposed but cutting effort not feasible as income will drop
High costs	Fish strategically for the market, less effort more price
High costs	Limit effort, buy bait in bulk
High costs	collective buying
High costs	Bait: use discards
Low catch rate	More technical measures
Low catch rate	More v-notching no landing of berried lobsters
Low price	sell collectively to an agreed price
Poor access to market	Go for higher volume and lower price if necessary
Poor prices	Product development and market research
Poor prices	get more buyers in, increase market outlets
Poor prices	get in more buyers,
Too many pots	Pot limit (throughout the Bay), mark gear, remove unmarked gear, limit entry
Too many pots	Limit entry (full timers only) and pots
Too many pots	Limit entry and pots per boat, limit part-timers
Too many pots	Limit pots, limit boats but allow transfer to family members
Too much effort	Closed seasons all species, increase minimum size to 90mm
Too much gear reducing catch rate	Limit gear, increase v-notching
Undersized fish being landed	

Issues and solutions identified in the velvet crab fishery

The stock

Although some fishermen target velvet crab most fishermen regard it as a by-catch in the lobster fishery. 73% of fishermen suggested that the fishery had declined in the past 10 years. This decline was in both numbers and size (quality). However, some fishermen in the north and south shores suggested that the size structure of velvets was stable.

Fishing effort

There was some support for a closed season and for introduction of a minimum size. Grading is time consuming especially in areas where quality is poor. The use of escape hatches and a minimum landing size had some support.

Fishing costs

No comments obtained

Market price

No comments obtained

Table 11. Individual fishermen's comments on issues and solutions in the velvet crab fishery

Issues	Solutions
Decline	Minimum size, closed season
Grading is time consuming	Minimum size
Poor quality	Escape hatches
Small velvets killed in the shrimp fishery	

Issues for further discussion by GBIFA

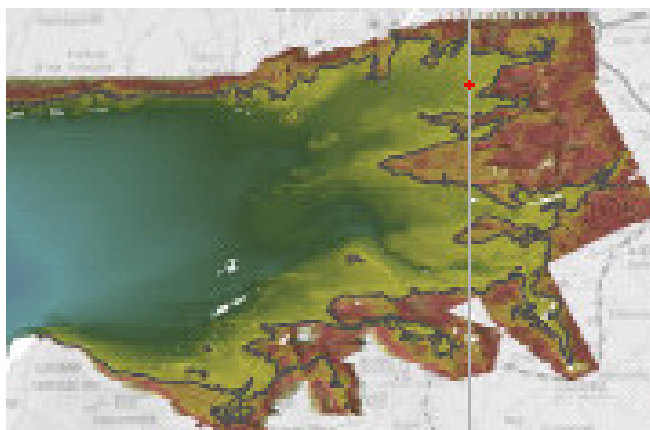
Based on the responses to the questionnaire and issues that arose in conversation with fishermen a number of points of discussion, and potential action can be identified.

1. A significant majority of fishermen feel that there are too many pots in the Bay. Their concern is not primarily that the stocks are depleted but that there is too much competition for ground, too much cost associated with tending gear and generally that it makes fishing more difficult than it should be.
2. The significant effort spent grading the shrimp catch is perceived to be highly beneficial to the stock but the expected increases in price has not materialised
3. The low market prices were seen by many to be due to buyer monopoly and that collective selling to a fixed price or generating a bid from a wider group of buyers would bring benefits in price. Whether such benefits can be obtained is unknown, however, and would require additional market research.
4. Fishing costs, particularly bait costs, are significant and most of the members of GBIFA seem to support the idea of collective buying of bait and perhaps other materials.
5. Fishing for lobster is not profitable at all times of the year due to a combination of low catch rates and low prices. Unfortunately periods of low price corresponds to periods of high catch and the market seems to be highly sensitive to changes in volume. As the lobster stock is 'resident' in Galway Bay and the members of GBIFA have, in effect, sole access to it a more strategic use of this resource could be envisaged which would include strategic fishing of a given quantity of lobsters for the market at certain times of year only.
6. The majority of fishermen report that velvet crab stocks have declined. This fishery is totally unregulated with no minimum landing size or other controls. Measures to improve the quality of velvets that are landed and protection of reproductive potential are important for this stock.
7. Although most fishermen regard the shrimp stock as stable the amount of fishing effort has increased significantly in recent years. Although the response of the shrimp stock to this increase is unknown increasing effort may pose a risk to the stock. Measures that protected a proportion of the spawning stock annually would reduce the risk of recruitment variability or failure. This could include an earlier closure to the season for instance. A later start to the season would allow for a better yield early in the season as shrimp grow quickly in August and September when water temperatures are highest.

Annex I: Questionnaire

A profile of the Galway Bay Crustacean Fishery

The information requested in this questionnaire is for and on behalf of the members of the GB Inshore Fishermen's Association. The information will be used to profile and describe how the members of the GBIFA historically and currently fish for species of shrimp, lobster and crab in the bay and seeks to identify the main issues that the members of GBIFA currently see as important in securing the future sustainable development of the fishery. BIM or MI will not publish, otherwise use or distribute to third parties any of the information made available in this questionnaire without first consulting the Committee of the Association. Individuals or vessels will not be identified in any report that may be produced including reports to the Association itself.



Shaded Relief Map of inner Galway Bay (the area fished by members of the GBIFA)
: source www.infomar.ie

Descriptions of the crustacean fishery in Galway Bay				
	1990-1995	1995-2000	2000-2005	2005-2010
Vessel type (open, half deck, decked etc)				
Vessel GTs and KWs				
GPS plotter installed ?				
Sounder installed ?				
Crew size				
Daily working hours				
Number of days fished per year				
Months fished				
What crustaceans did you target				
Other (non-crustacean) fisheries in which you and your vessel participated during this time				
SHRIMP pot hauls per day				
LOBSTER pot hauls per day				
VELVET pot hauls per day				
Gear soak times: SHRIMP				
Gear soak times: LOBSTER				
Gear soak times: VELVET				
Bait : shrimp, lobster, velvets				
Annual value of your landings of SHRIMP				
Annual value of your landings of LOBSTER				
Annual value of your landings of VELVETS				
Where do you fish for SHRIMP	NB: draw on the map (provided separately) the areas in which you currently fish for each species. You can also separately draw in areas			
Where do you fish for LOBSTER				

	that you used to fish if these are different to your current fishing area
Where do you fish for VELVET	
Describe the ground you fish for SHRIMP	<p>Very good ground for shrimp</p> <p>Average ground for shrimp</p> <p>Poor ground for shrimp</p>
Describe the ground you fish for LOBSTER	<p>Very good ground for lobster</p> <p>Average ground for lobster</p> <p>Poor ground for lobster</p>
Describe the ground you fish for VELVET	<p>Very good ground for velvet</p> <p>Average ground for velvet</p> <p>Poor ground for velvet</p>

Fisheries Management Issues in the GB Crustacean Fishery		
How many years have you been fishing in Galway Bay?		
How long has your family been fishing in Galway Bay?		
Is the performance of the SHRIMP fishery ? (envisage the trend over the past 10 years)	Stable	
	Increasing	
	Declining	
Is the performance of the LOBSTER fishery ? (envisage the trend over the past 10 years)	Stable	
	Increasing	
	Declining	
Is the performance of the VELVET fishery ? (envisage the trend over the past 10 years)	Stable	
	Increasing	
	Declining	
<p><i>Describe, how in an ideal world, the crustacean fisheries in the bay would operate. You could consider issues like the market, working conditions, number of boats, catch rate, competition for ground, catch rates, costs etc.</i></p>		
<p><i>Describe what you consider are the 3 main problems about how the fishery operates and performs today. You could consider the same issues as above</i></p>		

Economic status of the GB Crustacean Fishery

Is fishing profitable every day you fish or are there some days in which the costs outweigh the earnings ?

If you consider there are 3 elements which determine net profit can you indicate, in order of potential, which elements you think has potential for improvement ?

1. Catch rate , 2. Costs , 3. Market price

If you consider that these elements can be improved how could this be brought about in each case ?

Catch rate:

Costs:

Market price:

From: [REDACTED]@agriculture.gov.ie>
Sent: Thursday 2 March 2023 15:27
To: [REDACTED]@housing.gov.ie>
Cc: Foreshore <Foreshore@agriculture.gov.ie>; Housing Foreshore <foreshore@housing.gov.ie>
Subject: RE: FS007161 Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde Rocks Offshore Wind Farm

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Our Ref: FW.12.25 Fuinneamh Sceirde Teoranta - Site Investigations for the proposed Sceirde Rocks Offshore Wind Farm DHLGH Ref: FS007161

Dear [REDACTED],

I refer to your request for observations from Foreshore Section regarding this application.

Please see below and attached comments received from this Department's consultees.

1. The Marine Engineering Division of this Department has no objection to any licence that issues.
2. It is BIM's view that this application FW.12.25 for site investigations could impact on fisheries in the proposed area of this application for the reasons as outlined below:

Impacts to fisheries.

The Area A, 14100ha, highlighted on Figure 1, Rev.1 on Foreshore Licence Map are significant active fishing grounds fished by Inshore vessels from North and South Conamara. Fishing vessels from harbours Rós A Mhíl to Clifden including many ports in-between access Area A fishing grounds. Fisheries in Area A include:

- 1.Lobster (*Homarus gammarus*)
- 2.Shrimp (*Palaemon serratus*)
- 3.Brown Crab (*Cancer pagurus*)
- 4.Spider Crab (*Maja squinado*)
- 5.Velvet Crab (*Necora puber*)
- 6.Crayfish (*Palinurus elephas*)
- 7.Pollock (*Pollachius pollachius*)
- 8.Mackerel (*Scomber scombrus*)
- 9.Wrasse (*Labrus bergylta*)

Fish species 1 to 7 are predominantly exported to the European continent via two main buyers/processors. In recent years there has been a premium market in China for Brown Crab (*Cancer pagurus*).

8. Mackerel (*Scomber scombrus*) are sold locally to the hospitality sector.

9. Wrasse (*Labrus bergylta*), are sold as cleaning fish in the aquaculture sector.

Rural coastal communities in Conamara, for example, Carna and Ballyconneely have a high dependence on inshore fishing due to the long distance to industrial hubs for employment. If the proposed site investigations by Fuinneamh Sceirde Teo causes displacement from fishing grounds, Area A, fishers business will be affected.

Please find attached 1. SFPA comments, and 2. Marine Institute comments (for both FW.12.25 and FW.12.26).

Kind Regards,

[REDACTED]

Foreshore Section

Department of Agriculture, Food and the Marine National Seafood Centre Clonakilty Co. Cork

P85 TX47

Email: [REDACTED]@[agriculture.gov.ie](mailto:[REDACTED]@agriculture.gov.ie)



Aquaculture & Foreshore Application Observations

Application No: FS007161	Applicant Name & Area:
Main Array application	Fuinneamh Sceirde Teoranta
Application Category Seafood Offshore Renewable Energy. Wind Site Investigations off the County Galway coast. Total applied area 141000 hectares Proposed output 450 MW	

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 is in the fishing area known as the Western Waters. ICES Sub Area VIIB. Statistical rectangles 35D9 and 35E0. The application is approximately 5km from the nearest landfall. The water depth is in the 20-50m range.

The proposed application is within recognised spawning and nursery areas for *Gadidae*, *Clupeidae*, *Scombridae* and *Lophidae* species.

Commercial fishing within the applied area targets Demersal, Pelagic, Crustacean and Shellfish species. Vessels from the 10-18m categories fish the proposed area with static gear targeting *Merluccius merluccius* (Northern Hake), *Scophthalmus maxima* (Turbot) and *Lophius spp* (Monkfish).

Crustacean fisheries for *Homarus gammarus* (European Lobster), *Cancer pagurus* (Edible Crab) and *Paleamon serratus* (Brown Shrimp) are targeted by the potting fleet on an annual basis (*P.serratus* is subject to a closed season annually).

The site investigations may cause spatial squeeze for both the inshore and offshore sectors of the fishing industry during the duration of the proposed site investigations. Access restrictions will be in place when the surveys are underway (proposed annual surveys are 1-5 months over a 5 year period). Static fishing gear will have to be removed from the grounds which can be problematic for the smaller vessels due to alternative grounds being accessible, inclement weather and proximity of the vessels home ports.

The applicant has appointed a Fisheries Liaison Officer (FLO) for the proposed site investigations.



Effective communication between the FLO and the fishing community and the timely publishing of notice to mariners is required.

It is not envisaged that the site investigations will cause difficulties with conducting official controls for the SFPA within the applied area.

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 no Designated areas under the shellfish quality of waters regulations within the proposed area. The nearest shellfish production area is Cill Chiarán where *Crassostrea gigas* (Pacific Oyster) is produced.

The SFPA should have no difficulty in conducting official controls in the proposed area.

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

The site investigations for the proposed wind farm array will use survey platforms in the form of vessels and barges. Contamination from an accidental pollution spill is the main concern for the fish and shellfish species within the applied area. Effective communication between the applicant and its contracted parties with the SFPA should any pollution event occur can reduce the risk of potentially contaminated shellfish being placed on the market for consumption.

Sea-Fisheries Protection Authority

Date: 1-2-2023

To: [REDACTED], Foreshore Unit, AFMD-DAFM

From: [REDACTED]

CC: [REDACTED], Foreshore Unit, AFDM-DAFM

Re: Foreshore Applications FW-12-25 and FW-12-26 for Sceirde Rocks ORE proposed lease area and proposed cable routes

The Marine Institute has been asked to provide comments on foreshore licence for site investigations for a proposed ORE site at the Sceirde Rock (Co. Galway) and proposed cable routes landing in either Cos Galway or Clare. The proposed lease area and export cable corridor areas are covered under foreshore applications FS007161 and FS007543, respectively. These applications, in turn, correspond to DAFM reference numbers FW-12-25 and FW-12-26, respectively.

Both applications refer to a series of detailed site investigations to be carried out in an area for the proposed windfarm (14,100ha) and along three proposed cable route corridors through Galway Bay to Tawin Island in the inner bay and south to the Co Clare coast coming ashore at two possible locations near Milltown Malbay and Doonbeg.

The applications are for permission to carry out site investigation works only and extends to ecological, geophysical and geotechnical surveys over the proposed licence application and prospective cable route areas. It is noted the installation of a windfarm and associated infrastructure in the area in the future would be the subject of a separate Foreshore Lease / Licence application and is not the subject of this current application.

The overall aim of the site investigations is to collect the necessary data and information required to inform the engineering and detailed design of the proposed windfarm and cable route ashore within the foreshore licence application area. In addition, it is proposed to generate up-to-date wind resource and metocean data as well as environmental and ecological data to inform the Environmental Impact Assessment (EIA) and Appropriate Assessment (AA) for any future offshore windfarm project that comes forward within and outside of the Foreshore Licence Application Area. The Marine Institute is of the view that the outputs of any surveys be also used by the regulatory body (DHLGH) to generate baseline information in order to inform future monitoring.

It is proposed that the site investigations will include, among others:

1. Geophysical Survey - involving the use of multibeam echo sounder, sidescan sonar, Sub-Bottom Profiling (SBP) / Ultra High Resolution Seismic (UHRS), magnetometer,
2. Geotechnical survey – involving cone penetration testing as well as vibrocore and gravity coring, boreholes and the collection of grab samples for sediment and faunal analysis. The exact location, quantity and type of geotechnical samples collected would be subject to the results of the geophysical survey
3. Environmental Survey – It is anticipated that benthic grab samples (0.1m³) will be collected. The exact locations would be subject to the results of the geophysical survey. Video or still photographs will also be collected. Other ecological studies will include Bird, fisheries and marine mammal (using SAMs) surveys.
4. Metocean - It is also intended to deploy of wind, wave and current measuring devices (LIDAR buoy, Wave Buoys and ADCPs) in the survey area.

The number of specific test locations are clearly detailed in both applications and supporting documentation. The proposed site investigation methods are relatively standard and have been used previously in similar investigations in Irish waters and internationally.

It is intended that the proposed survey works would be phased over a period of 5 years following award of licence and specific survey scope will range from 2 months to 3 years in duration.

There are no licenced aquaculture sites within the proposed site investigation area on the Foreshore. The closest licenced aquaculture site to the proposed windfarm area is within Betrabouy Bay at approx. 2.5km from the proposed windfarm area. The closest licenced aquaculture site to the proposed route is likely in inner Galway Bay near Tawin Island at 300m (T09-520A). The exact locations of licenced aquaculture sites and details of species cultured can be found at the following link: <https://dafm-maps.marine.ie/aquaculture-viewer/>

In addition, DAFM have overseen the production of Natura appropriate assessment reports which consider interactions between Natura qualifying interests and aquaculture operations (existing and proposed) that have been carried out nationally and more specifically, in inner Galway Bay Natura 2000 sites. These reports can be found at the following link and give an indication of likely aquaculture activities occurring in the general area and a conclusion on their likely impact on N2000 sites.

[Aquaculture AA reports pre-2020](#)

Given the nature of the proposed site investigations, impacts on aquaculture are not considered likely.

There is commercial fishing activity within the proposed site investigation area on the Foreshore and therefore some interaction with fishing activity may occur. Notwithstanding this, it is noted that the applicant has appointed a Fisheries Liaison Officer who will engage with the fishing interests in the area during investigations. It would be important the views and concerns of the fishers in the areas to be surveyed be adequately addressed to the satisfaction of the Department. The MI refers the applicants to the [Shellfish Stock and Fisheries Review 2021](#) (Authors MI and BIM) for information on inshore fishery stocks.

The NIS submitted identifies a number of risks to conservation features (e.g., marine mammals) likely to result from the proposed activity. As mitigation, a number of actions are suggested that should reduce the risk. Foremost among these is the use of marine mammal observers (MMO) during operations including a 'soft start' protocol. The MI is satisfied that such measures will mitigate any risk to marine mammals during the site investigations. It is advised that DHLGH identify if any similar geophysical surveys may be carried along the west coast be identified and that they not coincide with this survey. It would be important that any geophysical surveys be carried out in isolation so as to avoid any potential cumulative effects on marine mammals.

On a broader note, the MI advises DHLGH that similar 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 particular. In addition, having these baseline data will facilitate future assessment of impacts of developments beyond the footprint of the licence/lease area. This would apply specifically to mobile species, such as mammals and birds.

Notwithstanding the observations communicated above, we note that a function of a statutory body is to comment on the likely impact of the proposed activity. On the basis of the above and

considering the nature, scale and location of the proposed site investigations the Marine Institute is satisfied that the site investigations as proposed will not have a significant impact on the marine environment in the survey area and will not have a significant impact on other legitimate uses / users of the area and therefore has no objections to a licence being granted. It is recommended that the following specific conditions should be attached to any licence that may issue.

1. The Licensee shall use that part of the Foreshore the subject matter of this licence for the purposes as outlined in the application and for no other purposes whatsoever.
2. The Licensee shall ensure that the survey activities are carried out and completed in accordance with the plans and particulars lodged with the application.
3. The Licensee shall appoint a Fisheries Liaison Officer who shall consult with relevant fisheries agencies and groups in addition to charter boat skippers in order that appropriate actions can be taken to avoid or minimize any interactions with ongoing fishing / angling and other tourism activities in the area during the course of the investigations.