



Graham Cadogan
Executive Officer, Foreshore Unit
Department of Housing, Local Government
and Heritage
Newtown Road,
Wexford,
Y35 AP90

RWE Renewables Ireland Ltd

Your ref. FS007188 RWE_Public
Observations Phase 2

Our ref. [REDACTED]
Contact [REDACTED]
Phone [REDACTED]
Email [REDACTED]@rwe.com

16/08/2022

FS007188 RWE_Response to Public Consultation

Dear Graham,

Thank you for providing the submissions from the public in response to the consultation on Foreshore Licence Application, FS007188 associated with the Stage 2 Appropriate Assessment under the European Communities (Birds and Natural Habitats) Regulations 2011.

The Foreshore Licence application is solely for the purposes of the completion of site investigation and environmental surveys. The application is not for permission to construct or operate a wind farm. Public submissions were invited for the purposes of conducting the Appropriate Assessment in accordance with Regulation 42(13) of the 2011 Regulations. Some of the issues raised in the public submissions are outside of the scope of the licence application and/or the purpose of the consultation and therefore the responses provided are focussed on the relevant issues

Please find attached our response to the matters raised to public submissions 1 - 12, 14 and 15, which are pertinent to the licence application and Stage 2 Appropriate Assessment consultation. The main observations made in each submission have been reproduced in the attachment, in italicised text, to indicate the specific points the response by RWE relates to. Our response to the remaining public submissions will be submitted shortly.

Yours sincerely

Enc: Applicant's response to public submissions 1 - 12, 14 and 15.

RWE Renewables Ireland Limited

Unit 5 • Desert House • Lower New Street Co. • Kilkenny • Ireland

Registered Office: RWE Renewables Ireland Limited • Unit 5 • Desert House • Lower New Street • Kilkenny • Ireland
Registered in Ireland no. 589170

Directors: [REDACTED]

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Public Submission 1

Again to briefly outline my opposition to all parts of this proposed development.

- 1. Destruction of seascape. The view would be ruined for miles of coast.*
- 2. Disturbing of dolphins etc by the work and also by the electrical fields.*
- 3. Killing of birds by giant turbines.*

It is near Rockabill island, an important breeding place.

The Foreshore Licence application is for ecological monitoring and site investigation works required to inform the engineering and design of the offshore wind farm, the cable corridor to shore and associated infrastructure only. It is not an application for consent to construct the proposed development.

Information to inform the Minister’s assessment of the potential for effects of the proposed works on marine mammals and birds, alone and in-combination with other plans and projects is provided in Sections 4.2 and 4.3 of the Applicant’s NIS, Annex F to the application. Given the localised nature of any effects from geotechnical and geophysical site investigations and commitments made to implementing appropriate mitigation measures (Section 4.4 of Annex F) no adverse effects upon the European Site’s integrity as a result of the proposed site investigations and ecological monitoring are anticipated.

Public Submission 2

*I'm a fisherman working in this area , I've 3 vessels and 7 lads working here for 20 plus years , there's been no consultation with fishermen as to where theses wind farms will be placed , it's been a bully boy attitude that there going to be built so get onboard , There's been more lies told to Europe by our government on the status of kish , bray and codling banks than you could make up , this has been brought to the attention of European Commission by many groups including fishermen, I'm part of an existing industry operating in this area and I wont be moving from this area for Rwe / codling or any other windfarm company's (ESB) .
https://www.europarl.europa.eu/doceo/document/A-9-2021-0184_EN.html*

- RWE are committed to continuing engagement with fishers regarding the planning and delivery of the survey works included within the Foreshore Licence application and the co-existence of our two industries in the longer term. A Fisheries Liaison Officer has been in place for the project since May 2019 and will continue to be available to the fishing community to ensure effective communications during the planning and execution of the proposed surveys.

Public Submission 3

*I own a fishing boat that fishes for whelk in the area.
Very concerned as this will have a negative impact on my ability to earn a living and pay for my boat plus wages for two crew men.*

First I've heard of this sage as we haven't been consulted.

RWE are committed to continuing engagement with fishers regarding the planning and delivery of the survey works included within the Foreshore Licence application and the co-existence of our two industries in the longer term. A Fisheries Liaison Officer has been in place for the project since May 2019 and will continue to be available to the fishing community to ensure effective communications during the planning and execution of the proposed surveys. The Fisheries Liaison Officer is well known to fishers active in the proposed survey area and he has made his contact details available to them.

Public Submission 4, Augustus Cullen Solicitors on behalf of fisher clients

The majority of the comments made in public submission 4 appear to be addressed to the State rather than RWE. We would however like to reiterate that RWE are committed to continuing engagement with fishers regarding the planning and delivery of the survey works included within the Foreshore Licence application and the co-existence of our two industries in the longer term. A Fisheries Liaison Officer has been in place for the project since May 2019 and will continue to be available to the fishing community to ensure effective communications during the planning and execution of the proposed surveys.

The following paragraph of public submission 4 raises matters in relation to Appropriate Assessment which is the subject of this consultation.

4. Impacts on the environment.

.....The CJEU developed this point when it issued a ruling in case C-461/17 (“Brian Holohan and Others v An Bord Pleanála”) that determined inter alia that Article 6(3) of Directive 92/43/EEC must be interpreted as meaning that an appropriate assessment must on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site. In that regard, consideration has been given in this Habitats Directive appraisal to implications for habitats and species located outside of the European sites considered in the appraisal with reference to those sites’ Conservation Objectives where effects upon those habitats and/or species are liable to affect the conservation objectives of the sites concerned. This means all environmental impact studies ought take into account the negative effect of the survey and works on all species including whelk both in and outside the survey area. I have done a word search the for “whelk” in one environmental impact study and it is not there. This is not good enough.....

The Appropriate Assessment Screening methodology as applied in Annex E¹ of the application documents, follows the source-pathway-receptor (S-P-R) approach which is a standard conceptual model that is used across a number of European Directives to characterise the means (pathways) via which effects arising from the proposed works could be experienced by receptors (sensitive qualifying interests of a European site). All three elements of the s-p-r framework must be present to conclude a potential effect-pathway. Effects upon supporting habitat (defined as areas that can be used by a species, in particular those which may be listed as a feature of a designated site, to support that species survival and/or reproduction) may provide a pathway to an effect on a European site and are therefore given consideration in the Appropriate Assessment Screening process.

Section 3.3 of Annex E defines the geographical scale over which possible effects from the proposed works may arise, the “zone of influence” as,

- The area over which direct effects could occur within the project footprint;
- The area of indirect impact surrounding the project footprint; and
- The area that captures remote sites where species distribution/ ranges provide connectivity.

The potential effects on supporting habitats of relevance to the features of the European Sites within the zone of influence of the proposed activities have been detailed in the Screening Assessment presented in Annex E. This is also the conclusion Screening for Appropriate Assessment conducted by the Independent Environmental Consultant (IEC) appointed by the Department of Housing, Local Government and Heritage (DHLGH).

Common whelk are not listed in any Annex of Directive 92/43/EEC and do not support the survival or reproduction of the qualifying interests of European sites within the zone of influence of the works. Whelk are therefore not discussed in Annex E, Report to Inform Appropriate Assessment Screening. We would however like to refer the correspondent to

¹ Report to Inform Appropriate Assessment Screening

following documents which were submitted as part of the Foreshore Licence Application - The Supporting Information Report and Annex C, EIA Screening and Environmental Report. Common whelk, European lobster, brown crab, velvet crab, scallops and nephrops are identified in these documents as commercially important shellfish species within the vicinity of Dublin Bay, on account of their landings weight and value. Whelk in particular has been identified through consultation with the local fishing fleets as the primary target species.

The effects of noise and of seabed disturbance resulting from the proposed survey activities are presented in Annex C EIA Screening and Environmental Report, which concluded that the effects on shellfish species would be both temporary and highly localised.

Public Submission 5, Wild Kildare

The basis of my concerns regarding this Wind Energy related application (and others in the Irish Sea) are routed in recent revelations via hundreds of records released to Coastal Concern Alliance, a citizens' group, under Freedom of Information and Access to Information on the Environment rules, which raise serious questions for habitat protection and wind farm development in the Irish Sea – a synopsis of this investigation can be found via the following link

<https://iwt.ie/dodgy-dealings-under-the-sea/>

The serious matters raised in the above link are now subject of an EU investigation – in light of this I believe the granting of this application at this time is highly premature and will further erode public confidence in how various government departments apply relevant National and EU rules in this space. Further more the ongoing failure of this state to implement the required MPA's in the Irish Sea ahead of such Wind Energy related works will undoubtedly lead to further legal and planning complications down the line.

The matters raised in this submission are related to the actions of the State rather than RWE.

Specifically in the context of direct impact on the Kish and Bray Banks, Annex E, Report to Inform Appropriate Assessment Screening provides a calculation of the combined footprint from all subtidal sampling techniques, including the footprint of the jack-up vessel and deployment frame, and buoy deployment across the entire Foreshore Licence area as 4,311m². Only a proportion of these activities are planned to take place on the Kish and Bray Banks, however even assuming that all activities occurred on the banks, the footprint would amount to 0.013% of the total area of the banks². The fine sand and gravel sediments which cover the banks are highly mobile and regularly disturbed by natural processes. Any additional sediment disturbed by the works will fall out of suspension almost immediately. No significant effect on the potential Annex 1 habitat are therefore predicted.

² The total area of the Kish and Bray Banks has been taken to be the area within the than 20m contour and is calculated to be 35km².

Public Submission 6, The Adela-Hare Centenary Commemoration Committee

As previously stated by our committee, this investigative foreshore licence application for geotechnical and geophysical site investigations would impact negatively on the following Natura 2000 conservation sites:

- *Howth Head Coast SPA [004113],*
- *South Dublin Bay and River Tolka Estuary SPA [004024],*
- *North Bull Island SPA [004006],*
- *Dalkey Islands SPA [004172],*
- *The Murrough SPA [004186],*
- *Howth Head SAC [000202],*
- *South Dublin Bay SAC [000210],*
- *North Dublin Bay SAC [000206],*
- *Rockabill to Dalkey Island SAC [003000],*
- *Bray Head SAC [000714],*
- *The Murrough Wetlands SAC [002249].*

No data has been included in the submission to support the contention that the geophysical and geotechnical investigations would negatively impact (or the nature and extent of such impacts) on the Natura 2000 sites.

On the basis of the screening assessment, presented in Annex E of the application documents, no impacts will occur on the qualifying interests of Howth Head Coast SPA and Dalkey Island SPA due to the limited spatial and temporal extent of the surveys proposed. Howth Head SAC, Bray Head SAC and the Murrough Wetlands SACs were also screened out as the features of conservation interest for those sites are not found within the Foreshore Licence area and no impact pathway exists to these features, e.g. vegetated sea cliffs and European dry heath. The North Dublin Bay SAC is outside the area of any possible direct impact from the geophysical and geotechnical surveys, or areas of wind wave and current and Static Acoustic Monitoring deployment. Ecological grabs will be taken using a 0.1 to 0.2 m² Hamon or Van Veen grab, the resulting increase in suspended sediment which may result will be highly localised and no likely significant effects on the qualifying features the North Dublin Bay SAC are anticipated to occur.

The Screening for Appropriate Assessment conducted by the Independent Environmental Consultant (IEC) appointed by the Department of Housing, Local Government and Heritage (DHLGH) agrees with these conclusions,

“The applicant has used a Source-Pathway-Receptor approach to identify sources of possible effects associated with the proposed project which have the potential to interact with qualifying interests of relevant Natura 2000 sites. Given the nature and scale of the proposed works, the possible effects, SPA/SAC site selection and feature screening is deemed appropriate, and an adequate level of information has been provided to justify the screening conclusions for the sources of effect which have been assessed.”

The remaining sites listed by in the submission, i.e. Rockabill to Dalkey Island SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA have been screened in for Appropriate Assessment. The conclusions of the Applicant’s Appropriate Assessment (Annex F of the application documents) are that with proposed mitigation in place, there are no likely significant effects on the qualifying interests of these SPAs or SACs. The mitigation measures have been set out in Section 4.4 of Annex F, The Applicant’s NIS, which is included in the application and made available for public consultation.

The proposed geotechnical and geophysical site investigations and follow on offshore wind farm development has the potential to cause permanent damage to the fragile sand banks off the east coast of Ireland thus impacting on the above Natura 2000 conservation sites and their associated ecology/biodiversity importance. It is our belief that the Dublin Bay coastline would be under serious threat from loss of the protection that the sand banks offer.

The geophysical surveys use techniques which do not come into contact with the seabed. The geotechnical sampling techniques include small diameter boreholes (up to 254mm), vibrocores (150mm) and cone penetration tests (40mm) which will not affect the stability of the sand banks. There is therefore no consequent effects due to a loss of protection on the coastline or European designated sites in the vicinity.

The remainder of this submission relates to the wind farm itself rather than the site investigation and surveys which are the subject of this Foreshore Licence application. An application for development consent under Maritime Area Planning Act, 2021 as amended and its associated consent framework will be submitted in due course. The Environmental Impact Assessment Report which will be submitted with the development consent application will include a full and detailed assessment covering the areas raised in the submission namely potential effects from the proposed wind farm development on seascape and visual receptors, physical processes, seabed habitats, fish, shellfish, marine mammals and birds. Information will also be submitted to assist the consenting authority (An Bord Pleanála) to undertake an Appropriate Assessment Screening and Stage 2 Appropriate Assessment as required under the European Communities (Birds and Natural Habitats) Regulations 2011.

Public Submission 7

Re: Killiney Bay proposed Shanganagh Landfall Cable Site Area Shanganagh coastal areas (DLR Map 10) and further considerations.

SAC Rockabill to Dalkey Island Proposed Landfall Cable Site Area at Killiney River Estuary Area.

A close scrutiny of the SAC grid southern boundary area reveals that this lies within 1.5 km of the Deansgrange River Estuary and the distinctive rocky 'reef' area in the intertidal shore area just to the north of the Deansgrange River. (This is often visible from mid to low tide periods and is a feature of the beach contour)

The southern grid points are 53° 14' 51" N: 6° 5' 27" W.

The Shanganagh River Estuary is just another 500 metres to the south.

The SAC should probably be designed to encompass the river inflow areas as they are an intrinsic influence on the SAC instead of stopping abruptly short of them.

Due to the flat nature of the immediate hinterland this is perceived to be a convenient site for landfall cables.

The river mouths on this section of beach are not in fixed channels though they require regular dredging as a flood prevention measure, which may give the impression of defined channels following a fresh dredging.

In effect these inshore waters are a buffer zone for the SAC. Disturbance and disruption of food chains in the nearshore area could have an adverse effect on the well being of the porpoise population nearby. With a prolonged survey period, followed by heavy construction of landfall cables and the possible cumulative impacts of more than one company operating intensive surveys in the same nearshore area, long term impacts may reduce the conservation success of the SAC.

At the same time, if survey activity (etc) has to avoid the SAC waters, that confines the traffic and intensity of activity to the immediate nearshore zone, with further impacts on coastal biodiversity. This is not yet an 'industrial' zone but may be reduced to one in the coming decades. It readily facilitates the Shanganagh Bray Wastewater Treatment Plant which is due for expansion soon and the major long sea Outfall Pipe which brings treated waste water one kilometre out into the Bay.

*The Rocky Reef north of the Deansgrange River Estuary provides both respite and foraging for seabirds that typically **include cormorants, heron, black headed gulls and herring gulls. Crab and small fish** provided sustenance along with **Sea Lettuce. Wrack and Kelp** seaweeds feature on the rocks depending on the water quality and red algae can also be frequently be seen at this location. A full assessment of the typical algae is necessary at different times of year.*

***Limpet and barnacle** are generally found on the reef rocks.*

*Further monitoring of the biodiversity on this reef is required as it can also support **octopus and lobster**. This habitat is already susceptible to changes in water quality and silting along with potential smothering by eutrophic green algae when the seawater nutrient load is out of balance. This can apply to rockpool areas further along the Shanganagh Coast and tends to peak in late summer.*

Pelagic fish can also be in the area depending on the season. In autumn 2021 **sprat** attracted shoals of mackerel into Killiney Bay, along beaches and as far as Coliemore Harbour Dalkey.

The nearby Shanganagh River Mouth and Estuary is also regularly frequented by seabirds **including oyster catchers** in winter, among other species. The river lagoon below the old stone railway bridge provides extra shelter to birds.

Turnstones can be observed all along this shore. **Brown trout, sea trout** and sometimes **eel** feature in the Shanganagh River and continue upstream into the wetlands area.

Marine bird species overlap with land birds along this section of shoreline.

Seal also pass close to the coast here on a north to south axis along Killiney Bay.

Otter are known to breed on the outer rocky area between Bulloch Harbour and Dalkey and are observed at times between Seapoint and the Shanganagh River where they continue upstream to the Loughlinstown Common and beyond. This is a recognised corridor and the pattern was confirmed in the latest DLR survey.

There was a recent sighting in mid July 2022.

Along with porpoise other cetaceans can be sighted in inshore waters.

RWE note the very detailed information and data sources provided in this response.

We are aware of the presence of areas of rocky reef in the nearshore between Killiney and Bray. The intrusive seabed surveys and site investigations, which are the subject of this Foreshore Licence application will be sited so as to avoid direct effects on these features. The design of the cable landfall and the selection of trenchless methods of installation for the proposed wind farm cables will also avoid impact on these ecologically important habitats.

Effects upon supporting habitat (defined as areas that can be used by a species, in particular those which may be listed as a feature of a designated site, to support that species survival and/or reproduction) may provide a pathway to an effect on a European site and are therefore given consideration in the Appropriate Assessment Screening process.

The potential effects on features of the Natura 2000 Sites located within the zone of influence, due to possible impacts upon surrounding areas which provide supporting habitat of importance to the features of those sites, have been considered in the Screening Assessment presented in Annex E. The area of direct habitat disturbance i.e. the footprint of the proposed activities, is 0.004km². Temporary, localised increases in suspended sediment will result from some of the proposed activities, but will drop out of suspension rapidly and the effect will be negligible in the context of the highly dynamic baseline environment. No significant effects on the qualifying interests of the designated sites as a consequence of effects on supporting habitat are therefore predicted.

Butterflies

The fringe vegetation in this area and along the clifftop to the south of the Shanganagh River continues to support several butterfly species and is a special habitat for two particular grassland butterflies in the peak

summer months: Ringlet and Meadow Brown. Numbers have held well over the past decade in spite of Climate Change impacts, coastal erosion and increased recreational trampling. Habitat is being lost to these species in other parts of DLR due to building expansion (eg Woodbrook, but other areas too) Statistics show that grassland butterflies are generally in decline in Europe. (NBDC reports etc)

Bats

Bats are regularly observed by the old stone bridge across the Shanganagh River and also along the clifftops to the south. Further data on both the foraging and migrant bats is necessary. Bats have probably been associated with the area for many decades from when the hinterland was predominantly rural and agricultural in character.

Sandmartins nesting in the Glacial Cliffs.

These migrant birds are a typical feature of the Shanganagh River estuary area and all along the glacial cliffs almost as far as Woodbrook to the south. There are a number of breeding colonies between the Shanganagh River Estuary and Corbawn Lane Beach Access at the proposed cable link landfall sites. They can be observed dipping in and out of the river waters while still in flight.

In a recent survey of the soft cliff between the Shanganagh River and Woodbrook several 'tufa' sites were identified by DLR.

Drift Line and Fringe or Transitional Vegetation.

Seashore species consistently feature **Sea Radish, Sea Spurge, Sea Beet, Sandwort, Mayflower, Sea Holly, Tree Mallow, Sea Rocket** and even **Sea Kale** along with grasses such as **Lyme** while **Kidney Vetch, Bird's Foot Trefoil, Tree Mallow, Cowslip, Meadow Scabious** and many more varieties grow on the cliff edges or upper shore vegetated zones. Many of the species serve to anchor the shifting shingle with creeping stems just below the surface and help provide a more stable natural protective barrier to the nearest inshore areas. These systems are already under pressure with the impacts of storms, climate change and coastal erosion. They help break the force of possible tidal surges along with the old Victorian railway embankment that spans the immediate upper shore.

Overlapping small scale habitats and wildlife corridors.

Though the Killiney/Shanganagh/Hackettsland shore area is small and confined there are several overlapping habitats including river wetland, meadow, estuary, shingle shore, soft glacial cliff and rocky intertidal patches. Disturbance to any part can fragment the eco systems.

A full ecological assessment of the flora and fauna (including insects and other pollinators) of this area is overdue. It already suffers the pressures of climate change, and increase in recreational use with an expanding population, impacts of anti social behaviour such as scrambler bikes and the existing threats to the water quality of rivers and the receiving sea waters.

It is essential to get an accurate picture of the shoreline with regular 'walkovers' to monitor pressure points especially following highest tides and stormy episodes in an area which is already subject to change by natural processes.

The Appropriate Assessment Screening methodology as applied in Annex E, Report to Inform Appropriate Assessment Screening of the application documents, follows the source-pathway-receptor (S-P-R) approach which is a standard conceptual model used to characterise the means (pathways) via which effects arising from the proposed works could be experienced by receptors (sensitive qualifying interests of a European site). All three elements of the s-p-r framework must be present to conclude a potential effect-pathway. There is no pathway for an effect from the proposed surveys and site investigations upon the terrestrial and littoral species identified in the section of the submission reproduced above.

— **Possible Landfall Cable Link site on the beach below the Shanganagh Waste Water Treatment Plant via the seabed.**

At high tides and during storms the water comes right up to the cliff edges at this location and for much of the coast from the Shanganagh River Estuary to Bray. Storm forces continue to erode the soft cliff at this location. Routing cables through this dynamic environment will be challenging and require sufficient space for the initial works along with on-going repairs and maintenance over the years. A distance of 250 metres to the river mouth is very tight especially when the river is in full flood. Wind force can determine the path of the exit water channels that also scour the beach.

Marine Spatial Planning was not in place before the landfall cable link site was proposed at this location (and by more than one company)

There are concerns about the impact of Electromagnetic fields from cables on the passage of fish and mammals. There is a possible impact also on crabs.

Any on-shore cable links that need access to the electricity Grid will also require a route that may further disrupt the immediate coastal and terrestrial habitats and cause loss of biodiversity. It is difficult for the local community to predict where the routes may be especially if a requirement for purchase of adjacent land may emerge at some stage.

The proximity to any other projects that may also be operating in this space would also be an issue.

Wider Impacts on Killiney Bay and beyond.

Over the past 30 years there have been several coastal protection projects along Killiney Bay: the construction of a berm bank and the import of rock armour at the north end of the bay; re-enforcement of the soft cliff between the Military Road access steps and the Seafield Road Railway Underpass access point; the recent Corbawn Lane access update and the Bray Landfill Remediation works which are still underway at Bray North Beach just beyond Woodbrook Shankill. These are all indicators of the extent of coastal erosion and have an impact on longshore sediment cycles over time. The Corbawn and Bray project plans went through a full Part 8 local authority planning process so people were given an opportunity to submissions with full information and site drawings available. These works may ultimately result in a narrowing of the beaches over time. That was factored in to the risk assessments at the time and the information was available to the public when various options were under discussion. As the old landfall site was shedding material into the surrounding environment and sea there was an urgent problem to be addressed. Rock Armour at the Bray site will be put in place during the final phase of the work and is not yet in situ.

The wider implications of fixed foundations for turbines along the Kish and East Codling sandbanks will also have an implication on sand cycles across Killiney Bay and these concerns are shared by other communities along the east coast as other proposals come into the picture. Inshore fishermen are very concerned about the changes with which they may have to contend.

Our sand banks are natural protective barriers to Dublin Bay, Killiney Bay and parts of the Wicklow coast and have been so for centuries. There is a danger that we may upset this balance in the race to implement rapid changes.

Cumulative impacts from the combined effects of turbines in close proximity to each other, on tidal currents and wind patterns are an increasing possibility in addition to the already observed increase in Coastal Erosion as a result of natural processes and climate change.

Beaches at Greystones, Brittas Bay and Courtown, County Wexford are just some that have changed in character in the past 30 to 50 years with erosion often as a driving factor. Communities in the north Dublin Coastal areas also question the impacts of so many wind farm developments at the same time. Inevitably these will bring about changes to inshore waters, coastal habitats and for the species that depend on those habitats.

There has been a call for clear modelling of the tidal processes predicted by the introduction of windfarms to the nearshore marine environment to be demonstrated to the public.

*'Revitalising Our Shores', the recent report by Regina Classen for Fair Seas draws our attention back to **Phytoplankton**, the major key to healthy marine eco systems and the basis for sustainability of all marine species. Ireland is still well placed to protect our life abundant waters as long as we maintain vigilance in our marine planning.*

I trust you will give these observations serious consideration.

The limited scale and nature of the proposed works will not have an effect on the form or function of the sandbanks or the coastline. The potential impact upon marine geology, oceanography and physical processes of the wind farm development, alone and cumulatively with other proposed wind farm projects, will be assessed and the results reported in the Environmental Impact Assessment Report (EIAR) which will accompany the development consent application under the Maritime Area Planning Act, 2021 as amended, and its associated consent framework in due course. The EIAR will address physical, biological and human receptors, including commercial fisheries and will also include consideration of the effects of electromagnetic fields on ecological receptors.

Public Submissions 8 and 11, Wild Ireland Defence CLG

This submission is made in addition to the previous observation by Wild Ireland Defence CLG (17 December 2021) regarding the above proposed development application seeking foreshore licence consent.

The following is submitted in good faith and based on concerns regarding achievement of the objectives of the Nature Directives.

As noted previously, responding to the ecological crisis at an international level the EU Commission concludes that both the Habitats and Birds Directives (providing strict protection for protected habitats and species) remain fit for purpose. However, the need to better implement both directives is emphasised:

"Commission evaluation shows Nature Directives are fit for purpose...."

On 16/12/2016 the Commission has published the 'Fitness Check' evaluation of the EU Birds and Habitats Directives (the 'Nature Directives') and concluded that, within the framework of broader EU biodiversity policy, they remain highly relevant and are fit for purpose.

However, full achievement of the objectives of the Nature Directives will depend on substantial improvement in their implementation in close partnership with local authorities and different stakeholders in the Member States to deliver practical results on the ground for nature, people and the economy in the EU." (Available at: https://ec.europa.eu/environment/nature/legislation/fitness_check/index_en.htm)

Our coastal, marine and protected environments are experiencing ever increasing pressures from various developments, including the development of offshore alternative energy. To be sustainable, these developments must be reconciled with meeting the State's obligations regarding environmental protection. It is imperative that all EU legal instruments supporting sustainable development and coexistence of relevant but conflicting activities in our marine environment are fully implemented in a manner consistent with legislation and case law.

*It is requested that competent authorities ensure their observations, examinations, assessments and determinations are fully informed in accordance with the provisions of the Birds and Habitats Directives, as interpreted by legislation and case law. At this time of unprecedented loss of biodiversity it is critical that the competent authorities, on behalf of the public and future generations, are certain their determinations clearly demonstrate the **precautionary principle**.*

A future application for development consent for the proposed wind farm will be submitted to An Bord Pleanála under the Maritime Area Planning Act, 2021 as amended, and the associated consent framework. The development consent application for the proposed wind farm will be subject to an independent environmental impact assessment by An Bord Pleanála under *inter alia* the Environmental Impact Assessment Directive, the Habitats Directive, the Birds Directive, and the Wildlife Acts, and will be subject to public consultation as part of that process.

The current Foreshore Licence application for monitoring surveys and site investigation is accompanied by a Report to Inform Appropriate Assessment Screening (Annex E) and Applicant's NIS (Annex F). The assessment methods follow the guidance produced by DEHLG (2009) and OPR (2021) and the precautionary and proportionality principles that underlie the Habitats Directive. Screening for Appropriate Assessment has been completed by an Independent Environmental Consultant appointed by the Department of Housing, Local Government and Heritage and the Minister of State has concluded that a Stage 2 Appropriate Assessment, the subject of this consultation, is required. The Stage 2 Appropriate Assessment will be undertaken by the Minister of Housing, Local Government and Heritage on completion of this consultation.

Public Submission 9, Killiney Bay Community Council, KBCC

In the above Foreshore Licence application, RWE are applying for authorisation to undertake a geotechnical and geophysical site investigation for the proposed Dublin Array offshore wind farm. This application is being considered despite the lack of a valid selection site process for windfarm development.

Environmental impacts have not been adequately assessed. Back in 2012 these sites had been designated as Special Area of Conservation (SAC)¹ and Special Protected Area (SPA).

Killiney Bay Community Council (KBCC) notes that the imposition of site examination techniques on the Kish and Bray sandbanks, by RWE/Dublin Array, is of particular concern. KBCC pledges to protect, care and improve our neighbourhood, which includes our marine environment.

KBCC refers to the proposed development activity in locations off the coast of Dublin and County Wicklow, in preparation for the installation of multiple wind turbines. This will involve the granting of a Foreshore Licence to undertake geotechnical and geophysical site investigations and ecological, wind, wave and current monitoring to provide further data to refine wind farm design, cable routing, landfall design and associated installation methodologies for the proposed Dublin Array offshore wind farm.

KBCC notes in regard to the proposed location of wind turbines at a distance of approximately 10km from Killiney Beach, that this area has not yet received the attention or, if confirmed, the identification of a Marine Protected Area (MPAs). We see this as a deviation from proper planning, whereby zoning of the near shore Irish Sea for the purpose of mapping the ecology systems is not taking place in tandem with the assignment to developers of such portions of the Irish Sea for the construction of multiple wind turbines. This anomaly enables the assignment of large portions of near shore territory to developers, without reference to MPA's.

The designation of Marine Protected Areas is an active workstream being progressed by the State currently (gov.ie - [Marine Protected Areas \(www.gov.ie\)](http://www.gov.ie)). This process is outside of the control of RWE. The application documentation demonstrates that with the committed techniques proposed to be employed, the limited scale and temporal extent of the proposed site investigations, they will not have any significant effects on the environment.

A future application for development consent for the proposed wind farm will be submitted to An Bord Pleanála under the Maritime Area Planning Act, 2021 as amended, and the

associated consent framework. The location of the proposed development is not within a site designated as an SAC or an SPA. The development consent application will be subject to an independent environmental impact assessment by An Bord Pleanála under *inter alia* the Environmental Impact Assessment Directive, the Habitats Directive, the Birds Directive, and the Wildlife Acts, and will be subject to public consultation as part of that process.

1. Geophysical and technical specifications

These are indicative of site preparation for infrastructural works on the Kish and Bray Banks. We note that the legislation which replaces the foreshore licence does not consider the following:

- *Reference to historic applications for a single proposed project, and concomitant historic failures in winning a foreshore licence, with reference to making provision to rectify these failures before a new foreshore licence process can proceed.*
- *Consideration of alternative sites: in an application for a foreshore licence, it is necessary for the applicant to consider alternatives. (this applies to both lease and licence applications.)*
- *The visual representation of the proposed height of the turbines in Killiney bay. We cite the Offshore Energy Strategic Environmental Assessment Review and Update of Seascape and Visual Buffer Study for Offshore Wind Farms (Hartley Anderson, March 2020, and 2022). Visual impact studies consider impingement on shorelines to be critically important, especially adjacent to high public amenity beaches such as Killiney Beach.*

In connection with these omissions, KBCC notes the following protections in place for Killiney Bay:

- *Killiney Bay is adjacent to the southern end of the UNESCO Dublin Bay Biosphere Partnership, which includes management by Fingal County Council, Dublin City Council, Dun Laoghaire County Council, Dublin Port Company and the National Parks and Wildlife Service of the Department of Housing, Local Government and Heritage and the Gaeltacht.*
- *In reference to the Supplementary Map contained in the Dun Laoghaire County Development Plan 2022-2028, we note that this map continues south across Killiney Bay to a point opposite the Martello Tower and offers a grid of protection to marine life. <https://docreader.reciteme.com/doc/view/id/629f3b85187c4>*
- *Killiney Beach is the recipient of the Bord Failte grant of 1M for the construction of an Amenity Centre for sea water sports. <https://www.failteireland.ie/tourism-news/19m-investment-announced-water-based-activity-facilities.aspx>*

In this context, KBCC take note of the de-listing in 2012 of the Special Area of Conservation (SAC) designation for the Kish bank. in 2012. We seek an explanation for this removal of this protection, and whether the absence of this SAC, which was fully compatible with SAC requirements, was made in order to favour the development of wind farms on these sandbanks. In this context, we examine the proposed objective to install 61 turbines, 310 metres high, on the Kish Bank, and the continuation to include the Bray Bank.

This application, submitted under the Foreshore Acts 1933 to 2014, as amended, is for ecological monitoring and site investigation works required to inform the engineering and design of the offshore wind farm, the cable route(s) to shore and associated infrastructure. In the absence of any risk of adverse effects on the integrity of a European site, there is no obligation to consider alternatives to the proposed Foreshore Licence application.

The proposed windfarm will be the subject of further consultation in the future as part of the development consent process under the Maritime Area Planning Act, 2021 and the associated consent framework. An Environmental Impact Assessment Report will be submitted with the application which will include an assessment of the potential impact the wind farm may have on a range of receptors including seascape, marine mammals, birds, navigation, recreational uses and the physical environment. Consideration of the potential impact of the proposed wind farm on UNESCO Dublin Bay Biosphere and proposed Natural Heritage Areas will also be included along with impacts on other designated sites within the vicinity of the proposal. The development consent application documents will also include details of the alternatives considered and the reasons for selection of the site.

2. Geophysical Site Investigation Survey

Analysis of the extensive detail presented in RWE Renewables Ireland regarding a geophysical site investigation, confirms their intention to construct the platform for the proposed turbines on one inshore site, the Kish and Bray sandbanks, approximately 10kms from Killiney Bay. This is not site evaluation, this is preparation for site construction. The term ipse dixit is appropriate in this case: the assertion is, 'this is just how it is' dominating the argument by opting out of alternative arguments: declaring that the issue is intrinsic, and not open to change.

This logical fallacy uses an assertion that the Kish and Bray Bank area, as shown on RWE Renewables site maps, is the only site available in Killiney Bay.

KBCC believes that the information provided does not 'provide complete, precise and definitive information capable of removing all reasonable scientific doubt as to the effects of the works' with reference to:

- the integrity of the Kish and Bray banks*
- 'pre-construction survey' or 'Array area' determines and reinforces and confirms the premise that this will be the area identified for construction, regardless of distance from shore, height of the turbines or ecological effect*

KBCC questions the purpose of this geotechnical survey. RWE Renewables state there is a necessity to examine foundation design, the size and installation methodology and to finalise cable route and landfall design and installation methodology, this work is effectively, to our knowledge, preparation for construction. Technology allows modelling for foundation design without the use of heavy machinery. A model will not damage the site for which a project is not yet decided.

The Foreshore Licence application is for site investigation and ecological monitoring only. It does not include permission for any, site preparation nor permanent installations. The “pre-construction surveys” the correspondent refers to are ecological monitoring surveys, including mobile surveys and deployment of static acoustic monitoring devices. Where ecological monitoring is required it is best practice to acquire a number of years of baseline data and for this reason RWE are seeking permission to commence ecological monitoring, if required, in 2023.

Foundation design requires detailed, location specific, information on seabed conditions such as soil stability. This information is needed to ensure the structural integrity of foundation design and to minimise effects on the receiving environment. The proposed surveys and site investigations will have no impact upon the integrity of the Kish and Bray Banks.

3. Proposed Benthic and Sea Floor Testing

The submission sub-headings *a) Cone Penetration Tests in the Array area and Export Cable Corridor, b) Vibrocores, c) Boreholes* describe the proposed testing as set out in the Foreshore Licence application documents and which are not reproduced again here.

d) Coastal Erosion Considerations:

We have now reached greenhouse induced climate scenarios. Sea levels are rising (see BBC Met Office). The presence of multiple turbines along the East Coast of Ireland will affect wind-wave energy and currents. Anthropogenic interference in littoral processes, via aggregate offshore extraction, excavation and construction of wind towers, raises concerns re. coastal erosion, which has a severe effect, devouring coastal habitats. In addition, independent and impartial reference to the destruction of habitat of birds, mammals, fish and invisible benthic ecosystems must be included in these accounts.

The points raised by the correspondent are in relation to the proposed wind farm, which will be subject to a future application for development consent under the Maritime Area Planning Act, 2021 as amended, and the associated consent framework. It should be noted that the effects of climate change are already having a damaging effect on biodiversity and ecosystem functions. These effects include rising sea levels, more intense storms, increased risks of flooding and deterioration in water quality. The Climate Action Plan 2021 includes plans to increase the proportion of Irelands renewable electricity to up to 80% by 2030, including an increased target of up to 5 gigawatts of offshore wind energy. If the proposed Dublin Array wind farm achieves development consent in the future it will make a significant contribution to the delivery of these targets.

The urgent need for climate action does not remove the need for proposed offshore wind farm projects to be designed to minimise environmental effects and to be subject to robust environmental assessments so that the consenting authority (An Bord Pleanála) can make balanced judgments regarding the acceptability of the proposal. The development consent application for the proposed wind farm will be subject to independent environmental impact assessment by An Bord Pleanála under *inter alia* the Environmental Impact Assessment Directive, the Habitats Directive, the Birds Directive, and the Wildlife Acts, and will be subject to public consultation as part of that process.

4. Costings Considerations:

Costings are an essential condition for a public appraisal and evaluation of profit and loss balances deriving from the installation of multiple wind turbines within and near to the pristine Killiney Bay area.

A. Factor the monetary value of, offset by the damage to, the benthic ecosystem proximate to the Dublin Bay Biosphere and proximate SAC within Killiney Bay

Note: Supplementary Map

<https://docreader.reciteme.com/doc/view/id/629f3b85187c4>

Value the proximity of this area to the Special Area of Conservation, Rockabill to Dalkey.

B. Define, weigh and calculate the ecological valuation of the Kish and Bray sandbanks as spawning grounds for fish and molluscs, and feeding grounds for seabirds. Such valuations are now current in environmental research institutes. (See Professor Jane Stout, TCD, Dublin. <https://www.tcd.ie/Botany/people/stoutj/>)

C. Estimate chart measurements of yearly speeds and durations of wind source, direction and power.

D. Equate these costs with the output of 'green electricity' profits.

E. Estimate of the band levels of customer consumption: domestic, manufacturing, farming, transport, technology (data centres) .

F. Define the recipients of this electric power. destinations, cost per kilowatt.

G. Define the difference in costs of the installation of turbines, near shore, and further from shore:

- installation into Killiney bay, 9 - 12 km*
- installation further from shore, 22 km*

H. Define the difference in costs between turbines installed on sandbanks and floating turbines.

I. Define the cost estimate of:

- manufactured parts of the turbines*
- installation of x number of turbines*
- maintenance and monitoring*
- repairs and replacements (blades)*
- removal of exhausted turbines*

J. Define predicted costs due to coastal erosion on Killiney Beach and Cliffs.

K. Consider the effect of rapidly degrading natural capital in the context of the risks of corporate decision-making and financial markets. Take account of impacts on nature, society and the economy and its dependency on the availability of air, water,

land, biodiversity, marine resources, the rule of law, and human capital.

As above, the points raised in the submission are in relation to the proposed wind farm, and are not the surveys and site investigations which are the subject of this Foreshore Licence application or current consultation. The proposed windfarm will be the subject of a development consent process under the Maritime Area Planning Act, 2021 as amended, and the associated consent framework.

Conclusions

KBCC seeks an independent assessment of Government decisions which currently seem to be inclined to favour the development of multiple windfarms on marine sites which have not properly assessed for development. Although we understand decisions made under the mandate of climate change, and 'clean energy', we argue that sensitive sandbank ecosystems, which were marked as SAC and SPA in 2012 are now not protected. This is a "back to front", approach to development. Marine Protected Areas must be decided prior to, or at least, in tandem with government contracts for multiple marine acres for wind farm construction. We note at present, additional potential developments which adding RWE Dublin Array, ESB Sea Stacks and Rialta Na Mara, the area to be covered amounts to approximately 500km². This is the equivalent of 123,553 football fields.

The Foreshore Licence application is for site investigation and ecological monitoring only. It does not include permission for any, site preparation nor permanent installations. The designation of Marine Protected Areas is an active workstream being progressed by the State currently (gov.ie - [Marine Protected Areas \(www.gov.ie\)](http://www.gov.ie)). This process is outside of the control of RWE. The application documentation demonstrates that with the committed techniques proposed to be employed, the limited scale and temporal extent of the proposed site investigations, they will not have any significant effects on the environment.

It is difficult to distinguish the intention of Government as separate from the aims of developers of wind farms. We address the concept of 'project splitting' in which the proposed development activity straddles a stated aim, and yet, incorporates a decision already taken.

This application is solely for ecological monitoring and site investigation works, the latter required to inform the engineering and design of the offshore wind farm, the cable route(s) to shore and associated infrastructure. The proposed windfarm will be the subject of a future development consent application under the Maritime Area Planning Act, 2021 as amended and the associated consent framework.

KBCC believes that the information provided by RWE Renewables does not provide complete, precise and definitive information capable of removing all reasonable scientific doubt as to the effects of these investigations. The amount of drilling fluids is unspecified. The reinstatement of surfaces problematic. It is unclear if the threshold tolerance of a selected site will survive CPT's, microcore machinery, and borehole drilling, thus depriving the site of its inherent ecological value.

Drilling muds comprise a mixture of seawater and an approved drill fluid selected from the 'OSPAR List of Substances/Preparations Used and Discharged Offshore which are considered to Pose Little or No Risk to the Environment'. This drill fluid can be either bentonite or Purebore or equivalent which is based upon a natural potato starch. Within each Borehole approximately 250 kilogrammes of additive, dissolved in 10m³ of seawater, will be used.

Drilling fluids will be returned to the vessel and re-used or returned to shore for disposal, however some loss of drilling fluids is possible. All drilling fluids will be fit for purpose and selected from the 'OSPAR List of Substances/Preparations Used and Discharged Offshore which are considered to Pose Little or No Risk to the Environment'. Given the nature of the material and the small volumes potentially released to the environment there is no likely significant effect on any of Natura 2000 sites within the study area as set out in the Report to Inform Appropriate Assessment Screening, Annex E of the application documents.

All the proposed geotechnical survey techniques are of small diameter and sampling locations are within a highly dynamic area with strong sea currents. The voids created by the borehole drill and vibrocorers (254mm and 150mm diameter respectively) will fill naturally immediately following the removal of the equipment, leaving only a minor impression on the seafloor, which will fully over subsequent tidal cycles. CPTs do not remove any material and the hole created by the penetration of the cone (up to 40mm diameter), will infill almost instantly upon removal of the equipment.

It is not clear what is meant by "*the threshold tolerance*" in this submission. As explained above in response to Submission 3 the methodology applied to Appropriate Assessment Screening and presented in Annex E, Report to Inform Appropriate Assessment Screening, follows a standard source-pathway-receptor (s-p-r) approach to identify the potential for effects to arise as a result of the proposed surveys and site investigations. All three elements of the s-p-r framework must be present to conclude a potential effect-pathway. Effects upon supporting habitat (defined as areas that can be used by a species, in particular those which may be listed as a feature of a designated site, to support that species survival and/or reproduction) may provide a pathway to an effect on a European site and are therefore given consideration in the Appropriate Assessment Screening process.

The Report to Inform Appropriate Assessment takes a precautionary approach and concludes that potential effect pathways for five sites cannot be ruled out and should be carried forward to a Stage 2 Appropriate Assessment. These sites are:

- Rockabill to Dalkey Island SAC [003000];
- South Dublin Bay SAC [000210];
- Lambay Island SAC [000204];
- South Dublin Bay and River Tolka Estuary SPA [004024]; and
- North Bull Island SPA [004006].

Annex F of the application documents contains the Applicant's NIS, which concludes that with the proposed mitigation in place the monitoring and site investigation activities, either alone or in-combination with other plans or projects will not adversely effect the integrity of any of these sites thus the sites inherent ecological value will not be affected.

Public Submission 10, 14 and 15.

Please see below my submissions on the above proposed RWE Renewables Ireland, Site Investigations for the proposed Dublin Array Offshore Wind Farm.

I believe the application should be rejected for the following reasons:

- *This site was selected by the original Developer decades ago without any assessment as to environmental suitability. It has now been granted the status of a “Relevant Project” and there still has never been any appropriate assessment as to its environmental suitability.*
- *The Foreshore Licenses for these projects appear to have been originally granted in 2000 and expired in 2005 without ever been validly renewed. The original proposed areas and turbines bear no relation to the current proposed sizes. Consequently the current application has no validity.*
- *The site is chosen by foreign private developers on purely economic grounds as being cheap to develop, with all profits accruing to the private developer and none to the State -not even an undertaking of cheap electricity supply. No other European country would permit their environment to be vandalised by foreign interests in this manner.*
- *There has been no Marine Spatial Planning in place whatsoever prior to the selection of this proposed development site.*
- *The technology proposed for Dublin Array is totally outdated as one would expect for a site first selected decades ago. While Ireland is progressing with in this outmoded fashion, other nations are 5 to 6 years ahead in developing proven floating windfarm technology which can be located over the horizon, particularly on the West coast where the wind is strong and constant.*
- *The Kish Bank is directly in line of sight of one of the most beautiful natural amenities in the most populated area of the country – one that is extensively used for leisure and tourism. Again, no other country in Europe would consider using an equivalently located and aesthetic site for private windfarm development in this manner.*
- *Kish Bank has previously been identified by the National Parks and Wildlife Service (NPWS) as the richest example of marine biodiversity amongst Irish East coast sandbanks. In fact, the NPWS originally proposed the Kish Bank to be a protected area (SAC) before political interference forced them to retract.*
- *Currently there are proposals for windfarm development on sandbanks running along the whole Eastern Irish coastline from Wexford to Louth – it is simply not possible to effect cumulative development of this scale without destroying numerous habitats and utterly closing off migratory bird flight paths. Many of these proposals need to be dropped immediately as cumulatively they would be an ecological catastrophe with disastrous effects on the protection of our habitats and very shoreline itself. In this context, the Kish Bank proposal should be one of the first to be dropped due to its rich biodiversity and amenity value.*

This application is solely for ecological monitoring and site investigation works, the latter required to inform the engineering and design of the offshore wind farm, the cable route(s) to shore and associated infrastructure. A wide range of issues related to the environmental assessment of the suitability of the site and the proposed development have been raised and

these matters will be addressed in the future development consent application for the proposed development.

The current Foreshore Licence area is larger than the two foreshore licences awarded in 2000 as it includes corridors in which export cables may potentially be routed and an area surrounding the proposed wind farm boundary for the purpose of ecological monitoring. In accordance with good practice, mobile ecological surveys and deployment of static acoustic monitoring devices is proposed within the proposed wind farm development boundary but also within the surrounding area to enable precautionary monitoring across the wider receiving environment.

The proposed windfarm will be the subject of a future development consent application under the Maritime Area Planning Act, 2021 as amended and the associated consent framework.

In accordance with the Maritime Area Planning Act, 2021 as amended, a 'Relevant Project' will be required to obtain a Maritime Area Consent prior to submitting a development consent application. In the event of a Maritime Area Consent being awarded, Dublin Array will be subject to a significant levy during the development phase of the project. In the event of successfully securing development consent for the project it will also be subject to an annual operational phase levy. These levies are all payable to the Irish State.

The investigation work proposed will inevitably damage the protected Rockabill to Dalkey SAC habitat and disturb species that rely on that habitat, particularly the porpoise population.

- *The investigation work proposed will inevitably damage the sandbank habitat and disturb species that rely on that habitat.*
- *The investigation work proposed will inevitably damage the shore habitat and disturb species that rely on that habitat.*
- *The mitigation measures proposed are wholly ineffective in protecting our fish, sea mammals and porpoise populations, particularly in the aspect of sonar disturbance.*
- *The works proposed are effectively to be executed in a wholly unregulated and unsupervised manner with no apparent independent mitigation measures and wholly biased conclusions.*

For all of the above reasons, this application should be rejected in the public interest.

Please do not hesitate to contact me if I can be of assistance in relation to this submission.

Subject to award of a MAC the proposed Dublin Array wind farm will still be required to apply for development consent to An Bord Pleanála similar to other strategic infrastructure projects developed (and under development). This development consent application will be subject to public consultation and independent environmental impact assessment by An Bord Pleanála under *inter alia* the Environmental Impact Assessment Directive, the Habitats Directive, the Birds Directive, and the Wildlife Acts, and will be subject to public consultation as part of that process.

The footprint of the proposed geotechnical survey of the Kish and Bray Banks will be very small, estimated to be less than 0.013% of the bank area. The fine sand and gravel sediments which cover the banks are highly mobile and regularly disturbed by natural processes. Any additional sediment disturbed by the works will fall out of suspension almost immediately. No significant effect on the potential Annex 1 habitat are therefore predicted.

Physical disturbance to habitats and communities and any indirect localised displacement of prey (benthic and fish) will also be short term, temporary and over a negligible footprint, therefore no potential exists for significant effects to habitats or species, including marine mammals and seabirds which are features of Natura 2000 sites.

The Applicant's NIS, Annex F of the Foreshore Licence Application concludes that sub-sea impacts on harbour porpoise and their prey would be short term, temporary and intermittent and the best practice mitigation measures in relation to geophysical acoustic surveys as specified in the DAHG Guidance (2014) or other updated guidance as agreed with NPWS, will be followed at all times, the potential for disturbance of harbour porpoise will be minimised and no impacts on the Conservation Objectives of the Rockabill to Dalkey SAC are predicted.

Public Submission 12

In the above Foreshore Licence application, RWE are applying for authorisation to undertake a geotechnical and geophysical site investigation for the proposed Dublin Array offshore wind farm development. This application is being considered despite the lack of a proper process for site selection.

I wish to note to the Department in regard to the proposed location of wind turbines at a distance of 9 km from Killiney Beach, that this area has not yet received the attention or, if confirmed, the identification of a Marine Protected Area. This cannot be deemed to be proper marine planning, whereby zoning of the near shore Irish sea for the purpose of mapping the ecology systems has not taken place before the assignment to developers of such nearshore, coastal sites in the Irish sea for the construction of multiple wind turbines. This lack of eco-system based planning enables the assignment of large portions of near-shore territory to developers, without reference to MPA'S. The Hartley Anderson Report, which is the basis of the justification for RWE's application for a Stage 2 Assessment, seems to be substantially the same Report which was offered considered in December, 2021. The imposition of site examination geotechnical and geophysical testing on the Kish and Bray sandbanks, by RWE/Dublin Array, is of particular concern.

The Foreshore Licence application is for site investigation and ecological monitoring only. It does not include permission for any, site preparation nor permanent installations. The designation of Marine Protected Areas is an active workstream being progressed by the State currently (gov.ie - [Marine Protected Areas \(www.gov.ie\)](http://www.gov.ie)). This process is outside of the control of RWE. The application documentation demonstrates that with the committed techniques proposed to be employed, the limited scale and temporal extent of the proposed site investigations, they will not have any significant effects on the environment.

Hartley Anderson Limited (hereon in referred to as H & A report)
Marine Environmental Science and Consultancy
Screening for Appropriate Assessment
RWE Renewables Ireland, Site Investigations for the proposed Dublin Array Offshore Wind Farm
Report to Department of Housing, Local Government and Heritage – updated following RFI

In general, statements and responses on the part of the H&A report to public and statutory body submissions lack complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works.

When inaccurate data or obfuscation in the Dublin Array Foreshore Licence NIS documentation has been challenged within a submission of a relevant expert (such as in the case of IWDG re acoustic testing and the harbour porpoise), the H & A report in response does not provide complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the adverse effects on cetaceans (protected Annex IV species) in particular the harbour porpoise of the proposed works.

I Found that the explanations and responses by the H & A report seemed to be aimed chiefly at deflecting or dismissing the legitimate concerns and findings of NGOs and members of the public, rather than removing any scientific doubt as to the ability of the proposed exploratory works / site investigations to impact on the integrity of habitats and species populations in the area. As such, any foreshore licence and lease application process for Dublin Array investigative survey which seeks to rely on H & A's Screening for Appropriate Assessment prepared for the Department of Housing, Local Government and Heritage by Dublin Array, should be rejected.

The Appropriate Assessment Screening methodology as applied in Annex E, Report to Inform Appropriate Assessment Screening of the application documents, follows the source-pathway-receptor (S-P-R) approach which is a standard conceptual model used to characterise the means (pathways) via which effects arising from the proposed works could be experienced by receptors (sensitive qualifying interests of a European site). All three elements of the s-p-r framework must be present to conclude a potential effect-pathway. The approach taken is consistent with relevant Irish and EU guidance published to ensure compliance and transparency of both the process and findings.

The Independent Environmental Consultant appointed by the Department of Housing, Local Government and Heritage concluded that,

“Given the nature and scale of the proposed works, the possible effects, SPA/SAC site selection and feature screening is deemed appropriate, and an adequate level of information has been provided to justify the screening conclusions for the sources of effect which have been assessed.”

I would also emphasise that DHLGH has a duty of due diligence and objectivity to take overall careful note of the shortcomings and data gaps already evident in the proposed Kish and Bray banks site investigation licence/lease applications 2000 – 2022, and in this H & A report and any present in previous Dublin Array NIS screening documents.

I also wish to note to DHLGH that it is questionable how at this stage, the viability of the relevant project site and Dublin Array/RWE's wind farm proposal is still in existence, given that in 2006 / 09 the Marine Licence Vetting Committee rejected a lease application submitted to them by the then Kish and Bray consortium on the basis that no alternative sites were proposed and because of gaps in the data / information provided to the MLVC for consideration by the developer in question.

The grant of a foreshore licence which gives permission to undertake surveys and site investigations to inform the design of the wind farm or to collect data for monitoring purposes is made on terms which are expressly without prejudice to the subsequent mandatory development consent application to be made to An Bord Pleanála under the Maritime Area Planning Act, 2021 as amended and its associated consent framework. The site investigation works carried out at a preliminary stage of a project design are not inextricably linked to the construction and operation of the project itself, as the former can occur without the latter, therefore the development and operation of a wind farm is not a probable or likely consequence of granting a foreshore licence application for site investigations.

The proposed windfarm will be the subject of an application for development consent in due course under the Maritime Area Planning Act, 2021 as amended, and its associated consent framework. An assessment of the alternatives and reasons for site selection will be provided as part of the application documentation. The application will also be accompanied by a Natura Impact Statement which will assess the impact of the proposed development on Natura 2000 sites and European Protected Species which have the potential to be affected by the proposed development.

I also draw the developer and department's attention to the reach of Article 12.1. (d) of the Habitats Directive, which is clear: Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV (a) in their natural range, prohibiting: (d) deterioration or destruction of breeding sites or resting places.

The H & A report for the DHLGH perpetuates the deficit in the previous developer's reports of complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works, in particular effects that can result in the deterioration or destruction of breeding sites or resting places of the harbour porpoise, dolphin, seal (and angel shark and tope which the Dublin Array NIS screening document does not mention) in surrounding SACs and SPAs.

The potential effects on features of the Natura 2000 Sites located within the zone of influence of the proposed activities due to possible impacts upon surrounding areas which provide supporting habitat of importance to the features of those sites have been considered in the Screening Assessment presented in Annex E. The area of direct habitat disturbance i.e. the footprint of the proposed activities, 0.004km². Temporary, localised increases in suspended sediment will result from some of the proposed activities, but will drop out of suspension rapidly and the effect will be negligible in the context of the highly dynamic baseline environment. No significant effects on the qualifying interests of the designated sites as a consequence of effects on supporting habitat are therefore predicted.

The effects of the future large scale industrial nearshore wind project - which this stage 2 AA

process seeks to underpin - will also likely precipitate a habitat-specific marine biodiversity crisis in the surrounding marine and coastal area with ecosystem decline in and around the Kish and Bray sandbanks, which is particularly concerning given that these banks, with their documented range of qualifying features for submerged sandbanks - 1110 habitat, were proposed as an SAC until 2013 when they were removed from the list of sandbanks for consideration, an issue that raises questions as to why this came about. See the IWT piece on this matter:

<https://iwt.ie/dodgy-dealings-under-the-sea/#:~:text=Sandbanks%20are%20an%20important%20habitat,predominantly%20surrounded%20by%20deeper%20water.>

The inappropriateness of developer-led site selection for a large scale wind farm on the Kish and Bray banks, 10 km from shore, in an area vital for sensitive coastal and marine habitats and species, has not been properly addressed by the relevant authorities, or in this H & A report, or sufficiently by the body tasked with protecting and monitoring marine habitats – the NPWS.

This Foreshore Licence application is for site investigation and ecological monitoring only. It does not include permission for any, site preparation nor permanent installations. The proposed windfarm will in due course be the subject of further consultation through the development consent process under Maritime Area Planning Act, 2021 as amended, and the associated consent framework. The development consent application for the proposed wind farm will be subject to independent environmental impact assessment by An Bord Pleanála under inter alia the Environmental Impact Assessment Directive, the Habitats Directive, the Birds Directive, and the Wildlife Acts, and will be subject to public consultation as part of that process.

The designation of Natura 2000 sites in Ireland is a matter for the Irish State. RWE have not engaged with any Government Agency or Department concerning the designation of sites.

Given this critical issue, it is not surprising that the H & A report for the Department of Housing, Local Government and Heritage fails in my opinion to present complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the likely significant effects (LSEs) on the habitat integrity and ecological functionality critical to benthic communities, marine food webs and protected species in the survey area and species that rely on the Kish and Bray sandbanks and surrounding integral marine habitats, including surrounding SACs and SPAs, sandbanks for the purposes of spawning, foraging, breeding, resting.

As stated in Annex E, Report to Inform Appropriate Assessment Screening no significant effects on the qualifying interests of the designated sites as a consequence of effects on supporting habitat are predicted due to the scale, duration and nature of the proposed works.

Of most concern under the provisions of the EU habitat and birds directives is that I find that the H & A report does not provide complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the likelihood of the proposed exploratory works role in the precipitation of population decline in both the harbour porpoise and other internationally important and threatened bird species.

The Stage 2 Appropriate Assessment has yet to be undertaken.

An Independent Environmental Consultant (IEC), appointed by the Department of Housing, Local Government and Heritage, have undertaken a Screening for Appropriate Assessment (AA) (stage 1 screening for the likelihood of significant effects on Natura 2000 sites), which agrees with the conclusions of the Report to Inform Appropriate Assessment Screening, Annex E of the application documents,

A precautionary approach to identifying Natura 2000 sites within the geographical zone of influence of the proposed works was taken and a significant number of these sites were subsequently screened out on the basis that likely significant effects will not occur as not all of the three required elements, source, pathway and receptor are present. Please refer to section 3.8 of the IECs report.

Likely significant effects on the qualifying interests and sites presented in the Table below could not be ruled out at Screening stage.

Table 1 Appropriate Assessment Screening Conclusions

Site	Qualifying interests	Direct Disturbance on habitats	Underwater noise	Increased vessel traffic
Rockabill to Dalkey Island SAC	Reefs	Screened in	-	Screened in
Rockabill to Dalkey Island SAC	Harbour porpoise	Screened in	Screened in	-
South Dublin Bay SAC	Mudflats and sandflats not covered by seawater at low tide, Salicornia and other annuals colonising mud and sand, Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>), Mediterranean salt meadows (<i>Juncetalia Maritime</i>)	Screened in	-	-

Site	Qualifying interests	Direct Disturbance on habitats	Underwater noise	Increased vessel traffic
Lambay Island	Grey seal, harbour seal	-	Screened in	-
North Bull Island SPA	Light-bellied brent goose, shelduck, teal, pintail, bar-tailed godwit, curlew, redshank, turnstone, black-headed gull, dunlin, black-tailed godwit sanderling, shoveler, oystercatcher, golden plover, grey plover, knot	Screened in	Screened in	Screened in
South Dublin Bay and River Tolka Estuary SPA	Light-bellied brent goose oystercatcher, ringed plover, grey plover, dunlin, arctic tern, bar-tailed, godwit redshank, knot, black-headed, gull, roseate tern, common tern, sanderling	Screened in	Screened in	Screened in

H & A's Screening for Appropriate Assessment prepared for the DHLGH does not provide enough proper scientific objectivity in that the report presents data gaps, uses over-generalisations on the basis of unclear data to attempt to deflect concerns, or simply refuses or fails to address legitimate concerns as to errors in the Dublin Array NIS screening documents on the basis of precise and definitive findings and conclusions capable of removing all reasonable scientific doubt.

To emphasise this concern - the H & A's Screening for AA takes no account of a baseline expert bird study presented to the then deciding authority in 2001 that clearly found that the sandbanks in question should be designated as an SPA on the basis of the presence of the roseate tern alone – let alone other internationally important bird species found there. Why would the H & A's Screening document neglect to reference the findings of such a report, which was commissioned by the Dublin Array developer/ foreshore licence applicant and submitted to the deciding authority? To my mind this raises a concern as to the question of a potential leaning in favour of the proposed exploratory works in the case where any AA report appears to aim at dismissing or neglecting to refer to previous expert and objective findings on birds and the site of the original foreshore licence application.

These important findings in this case are in a 2001 report to the department from the developer which clearly state that no exploratory works or turbine construction should take place in the vicinity

or on the site of Kish and Bray banks and are as follows, highlighted for emphasis:

“Kish Bank Proposed Offshore Wind Farm Progress Report No. 2 on Seabird Surveys Sept 2001- Sept 2002 12

By Dr Steve Percival Eugene Archer, and Peter Cranswick

Contractor: Kish Bank Consortium

“The other potential impact highlighted in the preliminary report was the possible displacement of foraging seabirds from the Kish Bank by the presence of the wind farm. This was identified as a potentially significant impact for rather more species of national importance. As stated in that report, shallower sea areas such as the Kish Bank are relatively scarce in this region, the Kish itself constitutes quite a large proportion of the available resource. Therefore any effective loss of habitat would be more likely to result in significant ecological consequences, such as reduced breeding success and increased mortality. Alternative feeding areas with similar characteristics may well be limited. Similarly for birds outside the breeding season, loss of feeding resources could be significant. Again, if a disturbance effect occurs, its ecological consequence would be dependent on the availability of alternative feeding areas. If such alternative areas were not available and then birds were unable to reach adequate body condition before migration, this could result, for example, in increased mortality rates.

The main problem still lies in the lack of information about how these species would be affected by the presence of a wind farm (Percival 2001a). However, given the importance of the area, a precautionary approach would need to be taken. This is particularly the case when the conservation status of the populations using the Kish Bank is considered. The Bank itself has sufficient conservation value to qualify for SPA status, solely on the grounds of the roseate tern numbers that use it. This is not, however, the only SPA issue, as many of the seabird populations using the Kish are very likely to be from designated SPAs nearby. This includes all of the following:

- *Rockabill Island - breeding roseate and common tern.*
- *Skerries Islands - breeding shag and cormorant*
- *Lambay Island - breeding Manx shearwater, shag, guillemot, razorbill, fulmar, cormorant, kittiwake.*
- *Ireland's Eye - breeding gannet, cormorant, kittiwake, guillemot and razorbill.*
- *North Bull Island Dollymount - breeding common tern, passage roseate and other terns.*
- *Howth Head - breeding kittiwake and razorbill.*
- *Sandymount Strand / Tolka Estuary - breeding common tern, passage roseate and other terns.*
- *Wicklow Head – breeding kittiwake, razorbill, guillemot, fulmar and shag.*

If birds feeding on the Kish and breeding/on passage at any of these other SPAs were affected, it is possible that the overall SPA populations of these species could be reduced.

With the current lack of knowledge about how seabirds are affected by wind farm developments it can be concluded at this stage that as far as the most sensitive bird issue on the site is concerned, roseate tern, it would be inappropriate to construct a wind farm within its main area of use (i.e. in the northern half of the Bank). It would not be possible to be sure that significant impacts would not occur, and hence the only current solution would be to locate the wind farm outside the area used by this species.

In terms of the nationally important species, there are potentially significant issues with regard to the impacts on the Kish populations themselves and also in terms of possible impacts on neighbouring SPAs for a range of species, particularly including Manx shearwater, shag, kittiwakes, common terns, guillemots and razorbills.”

This consultation and the Appropriate Assessment screening process to which it relates is for permission to conduct monitoring surveys and site investigations. A future application for development consent for the proposed wind farm will be submitted to An Bord Pleanála under the Maritime Area Planning Act, 2021 as amended and the associated consent framework. A detailed assessment of the potential impact upon bird species, from the project alone and in combination with other projects, using up to date modelling and assessment methods and informed by monitoring data from operational wind farm sites will be undertaken and will form part of the development consent documentation. In the 2000s offshore wind development globally was in its infancy (the first offshore wind farms of 200MW or more were not commissioned until 2009). Over the past 20 years monitoring data from operational wind farm sites has been collected which continues to add to the body of knowledge and understanding of impacts associated with the construction and operation of these facilities.

In fact, elsewhere these concerns as to effects of all stages of offshore renewable energy projects are cited by the government’s own authority – the NPWS - as one of the main pressures on seabirds in Ireland:

“ Renewable Energy As a pressure, no seabird species was assessed as a medium or high for the pressure/threat known as Wind, wave and tidal power, including infrastructure (Code D01). However as a threat it was the most frequently assigned one across the suite of Irish breeding seabirds. This assessment was primarily informed by the report Feasibility study of Marine Birds Sensitivity Mapping for Offshore Marine Renewable Energy Developments in Ireland (Ramiro & Cummins 2016). Although tidal and wave technologies were considered in the report, this assessment focuses on the potential impact of offshore windfarms on Ireland’s seabirds primarily on account of planned future offshore wind farm development, which is considered to be relatively much more advanced and specifically in the Irish Sea (see www.seai.ie for further information). The main risks of offshore wind farms to seabirds have been identified as: collision mortality, disturbance, barrier effects and habitat loss or displacement (Desholm & Kahlert, 2005, Fox et al., 2006, Langston & Pullan, 2003). Therefore tables five and six of the Ramiro and Cummins’ (2016) report, which relate to the various seabirds’ ranked sensitivity scores to wind farm collision and displacement/disturbance scores respectively, led to defining the magnitude of this threat at a species specific level in this report ... Twenty-two seabird species were classed as medium or higher for this threat. This level of threat is justified on the grounds that there are several offshore windfarm projects which are currently at various stages along the consent process and thus, such cumulative pressures acting on seabirds will need to be assessed. Ireland’s marine SPA network is not yet finalised. Therefore the ex-situ aspects of appropriate assessments of potential impacts are of particular importance.”
(<https://www.npws.ie/sites/default/files/publications/pdf/IWM114.pdf>)

The points raised by the correspondent are in relation to the proposed wind farm, which will be subject to a future application for development consent under the Maritime Area Planning Act, 2021 as amended, and the associated consent framework.

In relation to the above, a report by the Environmental Protection Agency verified that the Kish sandbanks were legitimately being considered for designation (up to 2013) as an SAC or SPA:

“The Kish Bank is currently not designated as an SAC or SPA, however it is understood that NPWS intend to propose the Kish Bank as an SAC under the Habitats Directive (and possibly as an SPA under the Birds Directive) as sandbanks are Annex I habitats under the EU Habitats Directive. The location of this potential SAC/SPA can also be seen in Figure 2.1 (please note that the exact boundaries of the potential SAC/SPA are unknown at present and the boundary shown in Figure 2.1 is based on bathymetric features and included for reference only).”
(https://epawebapp.epa.ie/licences/lic_eDMS/090151b28046d5fd.pdf)

The designation as an SAC or SPA of the Kish sandbanks - the site that is the subject of the H & A report to the DHLGH - would have led, among other things, to a much stricter standard of protection for the sandbanks, and would probably have excluded further exploratory works or site investigations for the purpose of furthering the construction of a large scale, nearshore wind farm. Similar sites have been found to qualify for SPA designation where, as noted by the EU in a case involving Ireland’s failure to designate SPAs “It is sufficient that the area in question hosts a significant number of individuals of such a species or subspecies (at least 1% of the national breeding population of a species referred to in Annex I or 0.1% of the biogeographical population) in order for it to have to be classified as an SPA.”

The EU further underlined that in the case of Ireland, “After pointing out that SPA boundaries should be defined by ornithological considerations and not economic ones, the Commission notes that the Irish authorities, by contrast, have in many cases limited SPAs to sites in public ownership and have not classified sites seriously contested by economic interests.”
(<https://curia.europa.eu/juris/document/document.jsf?docid=71717&doclang=en>)

The matters raised in this submission are related to the actions of the State rather than RWE. It is a matter for the State to identify and designate Natura 2000 sites (SACs and SPAs). The Kish Bank is not designated as an SAC or SPA. Nevertheless the proposed techniques and measures intended to be employed as part of the site investigation and environmental monitoring proposed have been selected to ensure that environmental effects from the proposed activities are not significant.

These points above, raised at the highest level of the EU in relation to Ireland’s failure to designate SPAs, brings me to my main point which relates to shortcomings in the H & A report for the DHLGH. I have found data gaps and omissions in relation to protected bird species and Special Areas of Protection which are affected by the current licence foreshore application under consideration. These gaps and inaccuracies further undermine the report’s ability to present complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the potential for LSEs on SPAs and protected bird species.

In the H & A tables (pp 119 – 129) for Sites screened for likely significant effects I find there is a failure to correctly and adequately assess likely effects of exploratory works on bird species for the purposes of establishing beyond scientific doubt that the following species will not be subjected to: Direct Disturbance, Increased Vessel Traffic and Underwater Noise:

Protected bird species in Hartley & Andersen report to DHLGH that are either mistakenly omitted or miscategorised as not being affected by Direct Disturbance, Increased Vessel Traffic and Underwater Noise from proposed exploratory works/site investigation:

1) The Murrough SPA: listed in report **as not affected:** Red-throated Diver (on the AMBER LIST – breeding and wintering) , Herring gull, Little Tern – the foraging, breeding and resting grounds of these species will be affected – see reference to Developers own 2001 baseline report.

Species OMITTED from Murrough SPA that will likely suffer LSEs: Black headed Gull – This SPECIES IS ON RED CONSERVATION STATUS LIST.

Please refer to the screening assessment conclusions for this site presented in Table 15 of Annex E, Report to Inform Appropriate Assessment. Likely significant effects on the Qualifying Interests of the Murrough SPA are screened out as the site is 8 km from the boundary of the geophysical and geotechnical survey area, i.e. the potential source of underwater noise associated with the proposed works. The works which are proposed within the vicinity of the SPA are limited to ecological surveys only, The proposed surveys include one subtidal benthic ecology and one potting survey up to four trawl surveys a year for up to three years. The sampling locations will be spread across the extent of the Foreshore Licence area. The vessel movements associated with these activities in any particular area of the sea are therefore minimal and intermittent and therefore there are no likely significant effects on the qualifying interests of the Murrough SPA as a result of vessel traffic. The area of seabed that will be disturbed by the ecological survey are very small (grab sampling will be conducted using a 0.1 to 0.2 m² Hamon or Van Veen grab, Epibenthic sampling will be undertaken using a standard 2 m CEFAS beam trawl fitted with a 5 mm cod end designed to collect information on epibenthic invertebrate species, as well as small demersal and juvenile fish. Trawls will be standardised by length (500 m) or duration (10 minutes). Indirect effects on prey species will not result in likely significant effects on the qualifying species.

The IEC has considered likely significant effects on black-headed gull, which is listed as a qualifying interest of the site in the IECs report p123.

2) Howth head Coast SPA: Kittiwake, incorrectly listed in report **as not affected.** NPWS report states that Kittiwake depend primarily on sand eels which thrive only in and around the area of sandbanks targeted by applicant for prolonged periods of drilling, seismic and acoustic testing/works – works and testing which will inevitably negatively impact on the marine food web availability in and around sandbanks. “While some seabirds are able to adapt to fluctuations in food availability (Montevecchi & Myers, 1996), **several studies have shown that seabird survival, breeding success and chick growth are closely correlated to food availability** (Furness & Tasker, 2000, Barret et al., 2007, BirdLife International, 2008). During the breeding season, seabirds are effectively ‘tied’ to their breeding colonies meaning that local fluctuations in fish recruitment and availability can have a pronounced effect on the reproductive output for some species. In the worst-case scenario, if prey levels are reduced below the level needed to generate and incubate eggs, or if the fish species and prey sizes needed to feed chicks are unavailable, then fewer or no young are fledged due to starvation or depredation or indeed, seabirds fail to reproduce at all if the shortfall occurs early in the season.” **The Kittiwake is Red-list species (high conservation concern).**
Protected bird Species OMITTED IN REPORT from Howth head SPA that will likely suffer LSEs (foraging, breeding, resting):

Razorbill (Near threatened status, protected - <https://eunis.eea.europa.eu/species/854>); Fulmar (Threatened and Endangered status - Wintering habitats open ocean); Guillemot: threat status Europe: Near Threatened (IUCN); – all of these species are liable to access the proposed site area of Kish and Bray banks and surrounding exploratory site area for breeding, resting foraging, and post-fledgling (nursery) purposes.

Please refer to the screening assessment conclusions for this site presented in Table 15 of Annex E, Report to Inform Appropriate Assessment. Likely significant effects on the Qualifying Interests of the Howth Head SPA are screened out as they are 6.2km from the boundary of the geophysical and geotechnical survey area, which are the potential source of underwater noise. The works which are proposed within the vicinity of the SPA are limited to ecological surveys only and as described above no significant effects on kittiwake, which are the qualifying interest of Howth Head SPA are likely given the nature and scale of the proposed ecological sampling.

3) Dalkey Islands: *Roseate Tern, Common Tern, Arctic Tern: all of these species are categorised by H&A report as NOT liable to LSEs from proposed exploratory works. **This is incorrect according to EUNIS, Birdwatch Ireland data and NPWS data.** “Post-breeding (late July-September) even larger concentrations of birds occur in Dublin Bay and the nearby sandbanks (e.g. Kish Bank) attracting terns, not only from local colonies, but from further afield in Ireland (e.g. Lady’s Island Lake in Wexford) and overseas (North Sea, Baltic Sea) (79) (80) with recent counts indicating up 4,000 terns feeding in the Bay immediately post-breeding (5 species including Black Tern, Roseate Tern, Common Tern, Arctic Tern & Sandwich Tern) feeding in the bay post breeding (76) . The concentration of terns, particularly on the Kish Bank, is likely due to a supply of forage fish such as sandeels and sprats in late summer (79) . While the main east coast tern colonies are in Special Protection Areas (SPAs), in the Irish Sea, there is little data on available prey species sandeels and sprats, which terns depend on for chick provisioning (74) . If these resources become limited, then ultimately the long-term viability of these colonies will be tested.”* (<https://birdwatchireland.ie/app/uploads/2019/04/BirdWatch-Ireland-2016-Life-on-the-Edge.pdf>). *These protected species use the Kish and Bray banks as primary foraging, breeding, post-fledgling and resting grounds. The Roseate Tern presence alone, **according to a baseline expert report commissioned by the developer in 2001 and referred to the deciding authority for attention in decision making process stated that the extensive use of the site by this species would ensure that the Kish and Bray banks qualify as an SPA – but this designation has never happened.** Tern breeding is re-establishing itself on Dalkey Island and Maiden Rock is now hosting an offshoot colony of roseate terns for the first time in years which rely on sandeel foraging from the undisturbed banks of the site application. **How is it that the H & A report fails to include this critical data and the following?:** “This site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: **Roseate Tern, Common Tern and Arctic Tern. Dalkey Islands SPA is both a breeding and a staging site for Sterna terns. The site, along with other parts of south Dublin Bay, is used by the three tern species as a major post-breeding/pre-migration autumn roost area. The site is linked to another important post-breeding/pre-migration autumn tern roost area in Dublin Bay.** Birds are present from about late-July to September, with c. 2,000 terns, comprising individuals of all three species, recorded in 1998. The origin of the birds is likely to be the Dublin breeding sites (Rockabill and Dublin Docks) though the numbers recorded suggests that birds from other sites, perhaps outside the State, are also present. **The site also has breeding Great Black-backed Gull (7 pairs in 2001), Shelduck (1-2 pairs) and Oystercatcher (1-2 pairs).***

Herring Gull bred in large numbers in the past but is now very scarce (14 pairs recorded in 1999) ... Dalkey Islands SPA is of particular importance as a post-breeding/pre-migration autumn roost area for Roseate Tern, Common Tern and Arctic Tern. **The recent nesting by Roseate Tern is highly significant. All three tern species using the site are listed on Annex I of the E.U. Birds Directive.** <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004172.pdf> Another omitted species from this SPA is the Sandwich tern which are also present on site: "Sandwich Tern The largest tern with a small crest and black bill, tipped yellow. There are large colonies in Down and Wexford but non-breeding birds are widespread in the Irish Sea throughout the summer. Such birds regularly visit Dublin Bay and plunge-dive for fish around Dalkey"

Please refer to the screening assessment conclusions for this site presented in Table 15 of Annex E, Report to Inform Appropriate Assessment. No impacts on the qualifying interests of Dalkey Island SPA are predicted due to the limited nature of the works in terms of both spatial and temporal extent. All geophysical and geotechnical operations will be a minimum of 0.9 km from the SPA boundary in an area that has existing regular levels of vessel traffic. Any disturbance impacts or effects upon supporting habitats for the qualifying interest species that result from the proposed works would be negligible; therefore no potential for likely significant effect are predicted.

4) Ireland's Eye Cormorant Herring Gull Kittiwake Guillemot Razorbill - these species are categorised by H&A report as not liable to LSEs from proposed exploratory works. **This is incorrect according to EUNIS, Birdwatch Ireland data and NPWS data. H & A report – Omission of Protected Species whose foraging grounds will be affected by proposed exploratory works: Fulmar, Shag, Puffin, Northern Gannet,** (<https://www.rsgyc.ie/wp-content/uploads/2016/11/Inspectors-Report.pdf>)

Northern Gannet: whose predicted foraging range is 47 km (maximum 159 km).

Atlantic Puffin: "there is a scattering of smaller colonies at east-coast sites, including Ireland's Eye and Lambay Island ... Atlantic Puffins are known to switch from feeding on mainly fish during the breeding season and post breeding periods to zooplankton over the remaining winter period (Nov-Jan) (41) . Atlantic Puffins more generalised feeding strategy of switching between prey types allows them to cope with fluctuations in forage fish during breeding (88) . **Sprat and sandeels** [present mainly on Kish and Burford sandbanks within proposed site exploration area] are key prey items for Puffins. Changes in availability of these forage fish due to fishing down the food webs in North-Western Europe, which holds the majority of the global population, has had negative implications for overall numbers of Atlantic Puffins in the biogeographic region". (<https://birdwatchireland.ie/app/uploads/2019/04/BirdWatch-Ireland-2016-Life-on-the-Edge.pdf>)

The Atlantic Puffin is **Red Listed as of high conservation value:** "Species Biology, Diet: Being a marine species, the Puffins diet consists of various marine life such as fish and crustaceans. A favoured food item among the Puffins are sandeels. Habitat: This species is highly associated with marine habitats and will be found on suitable coasts and islands. Reproduction: During the breeding season, a single egg is laid and both parents will take turns incubating the egg for a period of 36-45 days. This egg will weigh approximately 64 grams. **The fledging period can take anywhere from 34 to 60 days.** An average wild Puffin can live for 18-20 years and will reach breeding age at five years." <https://species.biodiversityireland.ie/profile.php?taxonId=10029>

Please refer to the screening assessment conclusions for this site presented in Table 15 of Annex E, Report to Inform Appropriate Assessment. Ireland's Eye SPA lies outside of the Foreshore License area. No impacts on the qualifying interest of this SPA are foreseen due to the limited nature of the works in terms of both spatial and temporal extent. All geophysical and geotechnical operations will be a minimum of 9.0 km from the SPA boundary in an area that has existing regular levels of vessel traffic. Any disturbance impacts or effects upon supporting habitats for the qualifying interest species that result from the proposed works would be negligible; therefore no potential for likely significant effect are predicted.

The IECs report correctly lists the qualifying interests of Ireland's Eye SPA as cormorant, herring gull, kittiwake, guillemot and razorbill, and these features have been assessed, IECs report p123.

5) **Lambay Island** Fulmar, Kittiwake, Puffin, Cormorant, Lesser black backed gull Guillemot, Shag, Herring gull, Razorbill are all listed as species that will not suffer LSEs from proposed exploratory works. **This is not correct.** These species have a wide foraging range. Lambay Island is 25 km from exploration area and it is likely that these protected or threatened species will suffer disturbance from exploratory activities within their wider foraging area, in particular in relation to their chief food source found on the sandbank site at the centre of the site delineated for exploratory works : sand eels.

Please refer to the screening assessment conclusions for this site presented in Table 15 of Annex E, Report to Inform Appropriate Assessment. Lambay Island SPA lies outside of the Foreshore License area. No impacts on the qualifying interest of this SPA are foreseen due to the limited nature of the works in terms of both spatial and temporal extent. All geophysical and geotechnical operations will be a minimum of 18.2 km from the SPA boundary in an area that has existing regular levels of vessel traffic. Any disturbance impacts or effects upon supporting habitats for the qualifying interest species that result from the proposed works would be negligible; therefore no potential for likely significant effect are predicted.

6) **Wicklow Head SPA** H & A report listed species Kittiwake - incorrectly listed as not prone to LSEs from exploratory works.

H & A **OMITTED species** which are QI species for this SPA and likely to suffer LSEs from exploratory works: Razorbill: Threat status Europe Near Threatened (IUCN);

Fulmar: (Threat status Europe Endangered (IUCN), EU Population status: Threatened, Protected by: EU Birds Directive and 1 other international agreement);

Guillemot: Threat status Europe: Near Threatened (IUCN).

Please refer to the screening assessment conclusions for this site presented in Table 15 of Annex E, Report to Inform Appropriate Assessment. Wicklow Head SPA lies outside of the Foreshore License area. No impacts on the qualifying interest of this SPA are foreseen due to the limited nature of the works in terms of both spatial and temporal extent. All geophysical and geotechnical operations will be a minimum of 18.2 km from the SPA boundary in an area that has existing regular levels of vessel traffic. Any disturbance impacts or effects upon

supporting habitats for the qualifying interest species that result from the proposed works would be negligible; therefore no potential for likely significant effect are predicted.

The IECs report correctly lists the qualifying interests of Wicklow Head SPA.

7) Rockabill Island SPA and Rockabill to Dalkey Island SAC Purple sandpiper, Arctic tern

Roseate tern: *This is one of the most striking mis-categorisations in the H & A report of a protected species which will be affected by Direct Disturbance, Increased Vessel Traffic and Underwater Noise from proposed exploratory works/site investigation but is listed in the tables as not being affected. Rockabill Island SPA is widely recognised an internationally important breeding site and staging post for the roseate tern and the colony is well documented by Bird Watch Ireland and Bird Life International, as being critically dependant on the Kish and Bray banks, for breeding, foraging (sand eels), resting and post-fledgling activity. The Arctic Terns from Rockabill are also present in and around the proposed site area for the same purposes.*

Omitted protected species – *The Kittiwake (Threat status Europe: Vulnerable RED LIST (IUCN); EU Population status: Threatened; Protected by EU Birds Directive and 4 other international agreements; Breeding habitats sparsely vegetated land, Wintering habitats coastal open ocean shelf; Natura 2000 species code: A188.)*

Please refer to the screening assessment conclusions for this site presented in Table 15 of Annex E, Report to Inform Appropriate Assessment. Rockabill Island SPA lies outside of the Foreshore License area. No impacts on the qualifying interest of this SPA are foreseen due to the limited nature of the works in terms of both spatial and temporal extent. All geophysical and geotechnical operations will be a minimum of 26.2 km from the SPA boundary in an area that has existing regular levels of vessel traffic. Any disturbance impacts or effects upon supporting habitats for the qualifying interest species that result from the proposed works would be negligible; therefore no potential for likely significant effect are predicted.

The IECs report correctly lists and assesses the qualifying interests of Wicklow Head SPA.

The Developer/ Applicant/ Deciding Authority also neglects to assess cumulative impacts of Codling Wind farm surveys and ESB SeaStacks investigative surveys (among others in the pipeline) which will inevitably lead to likely significant effects on protected bird species that depend upon the surrounding coastal habitat and Kish and Bray sandbanks for survival. Regardless of cumulative effects, the following species are in fact likely to suffer habitat deterioration or fragmentation, disturbance, avoidance resulting in a consequent loss of foraging, breeding and resting sites which will seriously impact on these species populations, undermining their status and resulting in the deterioration of their habitat. This would then be in contravention of the Habitats and Birds Directives whereby repeated geotechnical and geophysical surveys (drilling, seismic testing etc) are allowed to take place over 5 years, in particularly affecting bird species prevalent and breeding in the summer months when the bulk of investigative works are scheduled to take place. This will result in deterioration of ecological functionality for these SPA / SAC protected areas and will adversely affect favourable conservation status resulting in species decline. For example "the site objectives of Rockabill to Dalkey Island SAC relate to temporary or permanent barriers. The site objectives to the Rockabill to Dalkey Island SAC, available here say "Species range within the site should not be restricted by artificial barriers to site use". To compound insufficient or patchy data on protected bird species there are still present in the H & A report there remains Insufficient Evidence

or Mitigation Measures.

The NPWS Conservation objectives supporting document - Marine Habitats and Species for the Rockabill to Dalkey SAC, v1 2013 confirms that Target 1, of the conservation objective for harbour porpoise as features of the Rockabill to Dalkey SAC is relevant to proposed activities or operations that will result in the permanent exclusion of harbour porpoise from part of its range within the site, or will permanently prevent access for the species to suitable habitat therein. It does not refer to short-term or temporary restriction of access or range.

To quote from another submission contained in the report:

“There is insufficient evidence that the proposed works, individually, or in combination with other plans or projects, is unlikely to have a significant effect on any European Site/s subject to specific mitigation measures. AA screening information in relation to matters including the bird species studied, the impact of underwater noise on bird species, a lack of clarity in relation to the proximity criteria and zone of influence used in screening sites and a failure to present evidence to support conclusions in relation to in combination effects.

Likely significant effects in combination with other plans or projects were not assessed, including combined effects of past investigations in the area.

The license application indicate that ‘The exact locations will be determined prior to undertaking the site investigation works’ however, no detailed grounds on which these determinations will be made has been outlined, therefore no appropriate determination can be made on whether this will adversely affect the integrity of local sites

The license application states that in carrying out intertidal works at South Dublin Bay and River Tolka Estuary SPA that “an ecologist will be employed to ensure that disturbance is minimised”. Not alone is this an admission of disturbance but it represents a likely significant risk that is not clearly defined at the licensing stage and it is left to the developer (or developer employed ecologist) to decide what constitutes damage to site integrity.

The license states that:

“If roosting birds are present on the shore during intertidal works, the nearby sample stations will be postponed until the birds depart, without provocation.” It is not clearly defined, at what stage resumption of work will proceed, e.g. after the roosting birds have departed, after the chicks have departed. As such the license fails to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works. Approval of such license would contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’).”

RWE provided responses to the points reproduced here by the correspondent in the FS007188 Applicant's Response to Public Submissions, dated 22 March 2022, sub-section, The Applicant's Response to Public Submission 11, specifically pages 38 and 45.

This failure to correctly assess LSEs on cetaceans and bird species and these data gaps effectively remove a lot of the validity of the Hartley Anderson report's overall data and conclusions. Again this data failure goes to the heart of the matter: the pre-existing knowledge of the unsuitability of the site as flagged in written reports by professional and prestigious bird protection groups to the government and department at the outset of this foreshore application process for the Kish and Bray which were and continue to be ignored.

The department, in spite of critical findings in an MLVC report at foreshore lease application stage, has refused to oblige or direct the developer to consider other sites as part of the application process, even though it is within its power to do so.

All likely sources of effects arising from the plan or project under consideration should be considered together with other sources of effects in the existing environment and any other effects likely to arise from proposed or permitted plans or projects. These include ex situ as well as in situ plans or projects. The report does not clearly state what in combination plans and projects have been considered in making the determination in relation to in combination effects. Simply re-stating that “there are no cumulative impacts” or that the works will only be “exploratory in nature is insufficient. Therefore, in spite of the findings of the H & A report for DHLGH there are Remaining Risks and Lack of Robust Scientific Data and Granting of this license on the basis of this report would likely contravene article 6(3) of Directive 92/43/EEC (‘the Habitats Directive’) by failing to contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the proposed works.

As detailed in Section 7.4 of the Report to Inform Appropriate Assessment a search of publicly available information was undertaken to identify other plans and projects which may result in adverse effects on the integrity of any Natura 2000 sites in combination with the site investigation and monitoring activities proposed under this Licence application. Sources included the Department of Housing, Local Government and Heritage Foreshore Licence application database and the Environmental Protection Agency Dumping at Sea Register. The search was undertaken for all projects within a 30 km radius of the proposed survey area. Given the localised and temporary nature of the proposed survey works this was considered precautionary. The projects considered include those applications submitted but not yet determined and existing licences which have been granted but the associated activities not yet completed. The Minister has access to the plans and projects of relevance to the in-combination assessment of this application to inform his Stage 2 Appropriate Assessment, including applications such as FS007134, ESB Wind Development Limited, Site Investigations at Sea Stacks Offshore Wind off Dublin and Wicklow, which have been submitted since the FS007188 application was submitted.