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BirdWatch Ireland submission to the further information requested from North Irish Sea Array (NISA) Offshore Wind Farm

A report by staff at BirdWatch Ireland

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Introduction

BirdWatch Ireland is Ireland's leading charity focused on the conservation of wild birds. Established in 1968, we currently have over 15,000 members and supporters and a local network of over 30 branches nationwide. As an organisation, our conservation team is actively involved in seabird conservation, research, and monitoring. Our policy and advocacy team are active stakeholders contributing to marine conservation at a national and EU level. We are the Irish partner of Birdlife International and are members of the Irish Environmental Network, Stop Climate Chaos, and the Sustainable Water Network, and a founding partner of the Fair Seas coalition. Our vision is that Ireland should become a world leader in marine conservation and the sustainable management of our marine environment, in which the protection and restoration of Ireland's biodiversity is vital.

For many years BirdWatch Ireland has been working to gather data and information on the importance and usage of our marine environment for seabirds and waterbirds. As an organisation, our conservation team is actively involved in seabird conservation, research, and monitoring, which has included tagging and tracking of seabirds at key sites, Digital Aerial Survey (DAS) work, observations on the daily movements and flight lines of a range of species, annual monitoring and management of key seabird colonies for more than 30 years (carried out largely under contract to the National Parks and Wildlife Service (NPWS)). We are particularly familiar with the part of the north Irish Sea where this proposed windfarm would be situated. We have successfully managed the conservation project at the Rockabill Special Protection Area (SPA), one of the most important colony sites in Europe for breeding terns, since 1989 under contract to NPWS, as well as other nationally important breeding tern colonies along the East Coast including Lady's Island Lake SPA and the Dublin Port colonies, some of which are located within the South Dublin Bay and River Tolka Estuary SPA (conservation work funded by Dublin Port). We have also conducted extensive surveying and tracking on Lambay Island SPA over the last twenty years, and periodic monitoring of seabird colonies on the Skerries Islands and Ireland's Eye. Our policy and advocacy team are active stakeholders contributing to marine conservation at a national and EU level, advocating for increased protections and concise management plans for seabirds, and environmentally focused marine spatial planning, particularly regarding proposed offshore developments in Irish and UK waters. BirdWatch Ireland therefore has a unique understanding of the importance of Ireland for birds and the possible impacts of continuing and increasing marine activities on their populations.

Ireland's Seabirds

Ireland's marine environment plays host to a huge diversity of ornithological life year-round. In summer, our offshore islands and cliffs host seabird breeding colonies, many of which are of

international importance or regional significance. In winter, our coasts and estuaries are of huge importance for wintering waterbirds. Seabirds, as apex marine feeders, are exposed to all threats affecting the ocean and are excellent biodiversity indicators, providing us with an insight into the health of, and pressures facing, our marine environment [1].

However, 23 of 24 breeding seabirds in Ireland are either Red or Amber listed Birds of Conservation Concern [2]. They are highly vulnerable, facing current pressures and future threats [3], including bycatch and incidental killing (due to fishing and hunting activities) [4], desynchronisation of biological/ecological processes due to climate change, decline or extinction of related species (e.g. food source/prey, predator/parasite, symbiote, etc.), other invasive alien species (other than species of Union concern), and now new potential impacts from offshore renewables (ORE), including associated infrastructure on both land and sea.

The main impacts of ORE windfarm projects on seabirds and waterbirds include displacement, disturbance, and collision risks. However, there are a range of other possible impacts, including barrier effects (where wind turbines and structural development can interfere with birds foraging and migration routes, increasing their individual energy expenditure and limiting available habitat), cumulative impacts (how impacts of all current and future ORE projects within and around the Irish marine environment work in concert with each other and affect birds who interact with them), wider ecological impacts on fish stocks/prey base and ORE development's impact on fishing effort and location (impacts prey base/fish stocks, such as changes in prey populations and locations, during the infrastructure's lifespan and how that might consequently impact seabird foraging opportunities), and impacts on non-seabird species, waterbirds and other larger birds using the air space.

Even though Ireland has designated a network of Special Protection Areas (SPAs) at coastal sites aimed at protecting the most important areas for breeding seabirds, trends in population and range show that some species are in decline [5] and more needs to be done to address threats to seabirds. In particular, the cumulative effects of multiple types of activities and developments within the marine environment must be adequately assessed.

BirdWatch Ireland consultation on the further information requested from North Irish Sea Array (NISA) Offshore Wind Farm

We at BirdWatch Ireland welcome the opportunity to respond to the Further Information Response Report (FIR) by the North Irish Sea Offshore Wind Farm (hereafter referred to as NISA) and produced in response to the Requested Further Information (RFI) by An Coimisiún Pleanála (hereafter referred to as ACP). In our original submission to NISA's project application, we expressed serious concerns around the siting of NISA within an extremely important area for birds in Irish waters and the way these birds were being considered within the Environmental

Impact Assessment Report (EIAR) and other documents relating to NISA's project application. Upon reading further documentation from both NISA and ACP, including the RFI and FIR documents this consultation is referring to, we still have serious concerns about the NISA project as we believe there is strong evidence that the development could be seriously detrimental to a range of threatened bird species and do not believe it should receive consent or be developed.

In our original observation to NISA's project application, we raised concerns around NISA's placement within the North-west Irish Sea candidate Special Protection Area (NWIS cSPA) [6] and the negative impacts the development could have on the birds that rely on the cSPA. This was a common concern raised in many observations according to ACP, who stated in the RFI that '*... a number of observations have raised concerns in relation to the assessment of site alternatives and suitability of the site for development having regard to the location of the site within the recently designated NWIS cSPA*' and requested NISA to review their placement and '*the rationale for choosing this site for development and provide further justification…*'; however, we disagree with the conclusion of developers within their FIR documents that NISA '*would not adversely affect the integrity of the NWIS cSPA or any other European site, either alone or in combination with other plans or projects*' and believe that the NISA development is within a marine environment too sensitive and critical for birds to be consented at this early stage of Ireland's ORE journey.

The NWIS cSPA is a legally designated area for the conservation of birds as required under the EU Birds Directive (2009/147/EC) [7], regardless of it being a candidate SPA that has not fully completed the formal designation process yet. There is also strong overlap of the NWIS cSPA with two different marine Important Bird and Biodiversity Areas (IBAs) for seabirds, a separate designation process undertaken by BirdWatch Ireland and BirdLife International in 2025 based on independent analysis [8]. Despite the separate analyses for the cSPA and IBA designations, both came to the same conclusion about the critical importance of this area to Irish seabirds, including within NISA's proposed marine footprint (referring to both the marine array and cabling areas) (Figure 1).



Figure 1: A map of the NISA's proposed marine footprint (red polygon) and its placement and proximity to all nearby SPAs (black cross-hatched polygons) and IBAs (orange polygons). The two largest SPAs within the map are the NWIS cSPA and Rockabill SPA [9]. The two marine IBAs that overlap NISA's proposed marine footprint include both the Dublin Islands and cliff extension IBA and the Northwest Irish Sea marine IBA.

We acknowledge the NISA developers are correct when they stated within the FIR that '*designation of a European site does not, in and of itself, render a site unsuitable for development or preclude the grant of consent*'; however, sites like SPAs are not chosen at random but are selected through examination of the evidence of many years of surveys and studies, and the best available evidence clearly shows the importance of the NWIS cSPA area

to a variety of bird species throughout different life cycles and times of year. It is worth mentioning that there are another 11 ecologically connected SPAs nearby to NISA's proposed marine footprint, further proving how important this marine environment is for birds, which could also be impacted by the consent and development of this project. It would not be precautionary at best, and potentially seriously detrimental to the achievement of the Conservation Objectives for the 21 NWIS cSPA Qualifying Interest (QI) species at worst, if NISA is developed within these critically important marine waters for birds.

1. Importance of NISA's planned development area to seabird groups

Surveys, studies, and research done in the Irish Sea show high species richness and high use by important seabird groups within the marine waters of the NWIS cSPA and NISA's proposed marine footprint. ObSERVE II, a government-led digital aerial survey (DAS) of birds and marine mammals in Ireland's oceans [10], found that the NWIS cSPA overlaps with part of the top 1% use areas in Irish waters by all breeding seabirds during summer, including within NISA's proposed marine footprint (Figure 2). When digging into taxa groups of seabirds identified by ObSERVE II, the same marine area within both the NWIS cSPA and NISA's proposed marine footprint was also found to be critical top 1% use areas for both auks (a taxa group that includes Atlantic Puffin (*Fratercula arctic;* hereby referred to as Puffin), Common Guillemot (*Uria aalge*; hereby referred to as Guillemot), Razorbill (*Alca torda*), and Black Guillemot (*Cepphus grylle*)) and for Black-backed gulls (a grouping of Lesser Black-backed Gulls (*Larus fuscus*) and Great Black-backed Gulls (*Larus marinus*)) in summer (Figure 3).

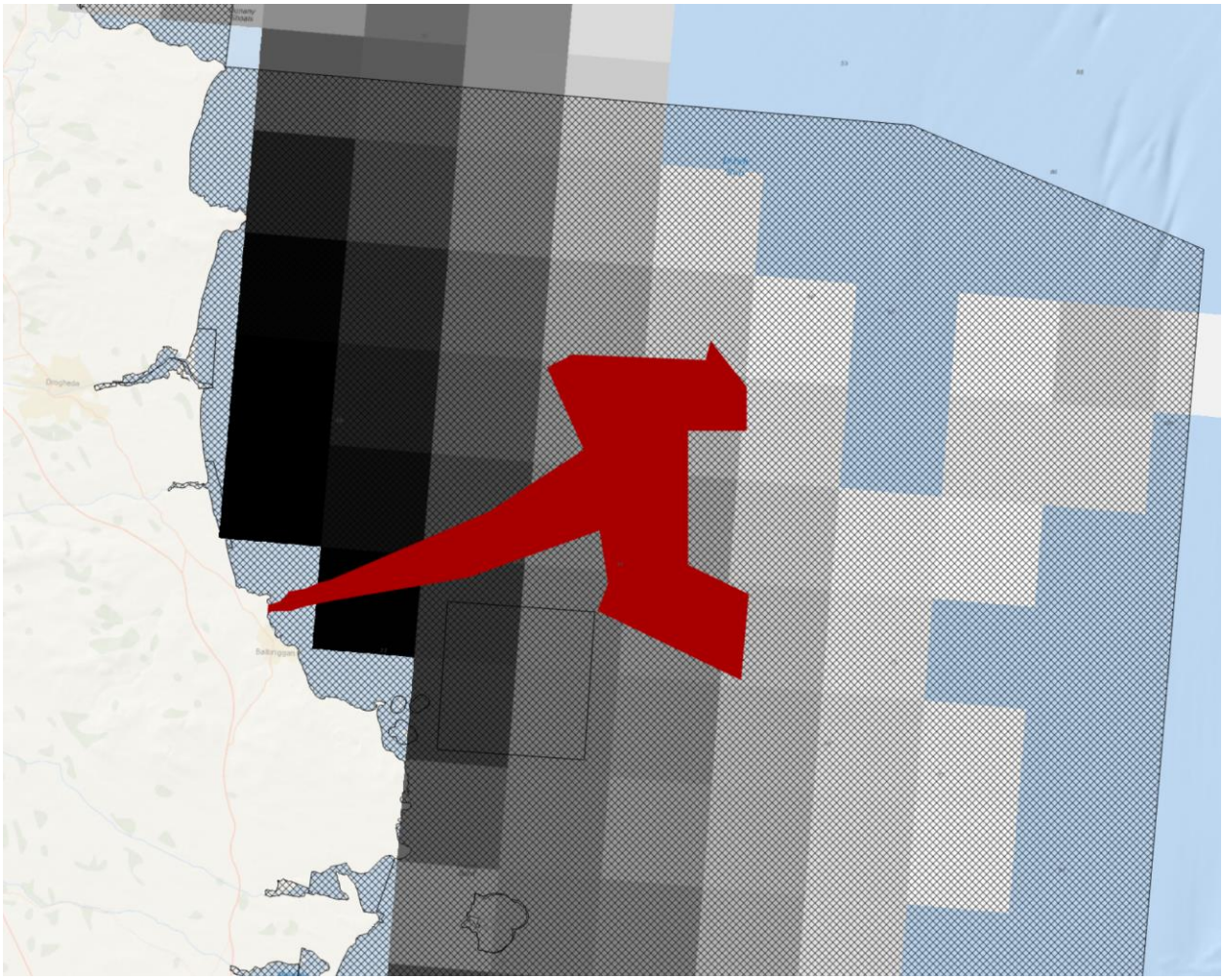


Figure 2: Map of the NISA's proposed marine footprint (red polygon), the North-west Irish Sea cSPA (crosshatched polygon), and a section of ObSERVE II survey data showing the top 1% of Irish waters used by breeding seabirds in summer (black and white raster layer). The darkest shaded areas are the most important areas as used by seabirds nationally, within that top 1%.

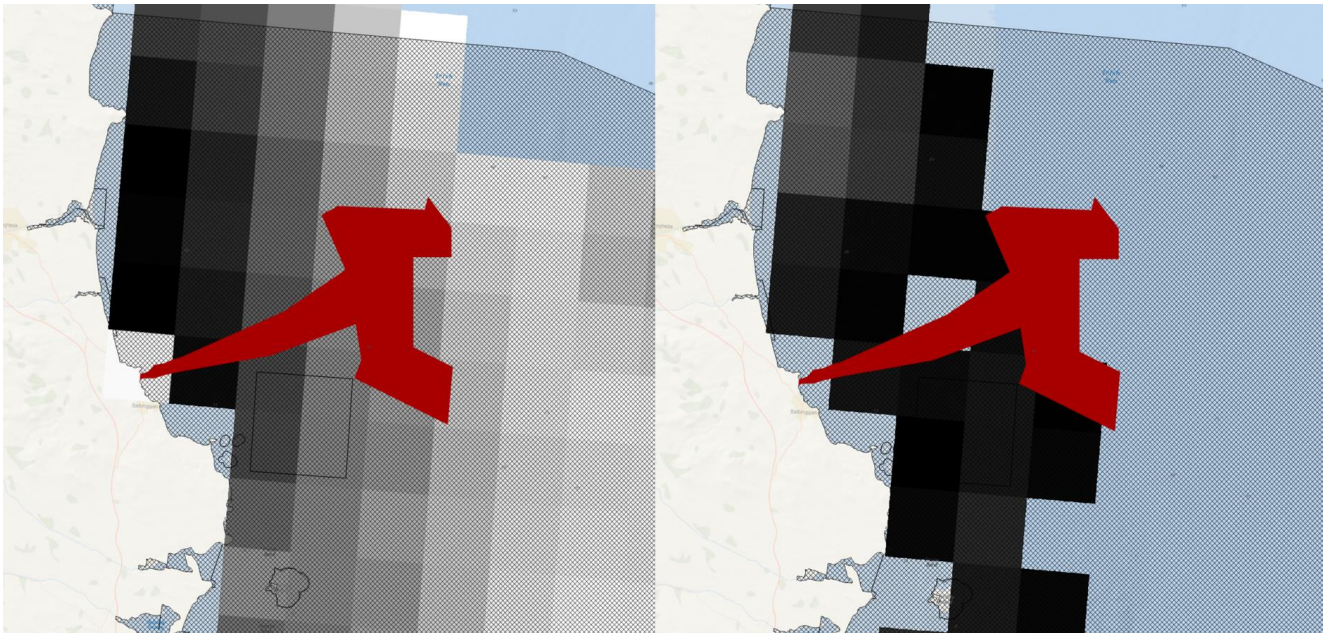


Figure 3: Map of NISA's proposed marine footprint (red polygon), the North-west Irish Sea cSPA (crosshatched polygon), and a section of ObSERVE II survey data showing the top 1% of Irish waters used by Black-backed gulls (left map) and auks (right map) (black and white raster layer in both). The darkest shaded areas are the most important areas as used nationally by auks and Black-backed gulls, respectively, within that top 1%.

The evidence of high use of this marine space by different groupings of seabirds, as well as all breeding seabirds as a whole, shown in Figures 2 and 3 shows how critically important this area is for a variety of different birds during the vulnerable summer breeding period. Both Black-backed gull species are QI species for the NWIS cSPA, as are Guillemot, Razorbill, and Puffin from the auk grouping; however, these species groups are impacted by offshore wind developments differently, with gulls generally having high collision risk [11,12] and auks generally being prone to displacement [11,13]. Given their different sensitivities and avenues for impacts from offshore wind, we cannot see how NISA '*would not adversely affect the integrity of the NWIS cSPA*' through impacts to these QI species in critically important habitat to them.

Gulls and auks are not the only two groupings of seabirds that heavily use and rely on the habitat of the NWIS cSPA and could therefore be impacted by NISA's development within the cSPA. A study of foraging Roseate Terns (*Sterna dougallii*) nesting on Rockabill SPA, located within the NWIS cSPA and 3.5 km from NISA's planned development area, found that the foraging terns within the NWIS cSPA marine space were often seen with other seabird species including Manx Shearwater (*Puffinus puffinus*), Northern Gannet (*Morus bassana*), Black-legged Kittiwake (*Rissa tridactyla*; hereby referred to as Kittiwake), Guillemot, and Razorbill [14] (Figure 4).

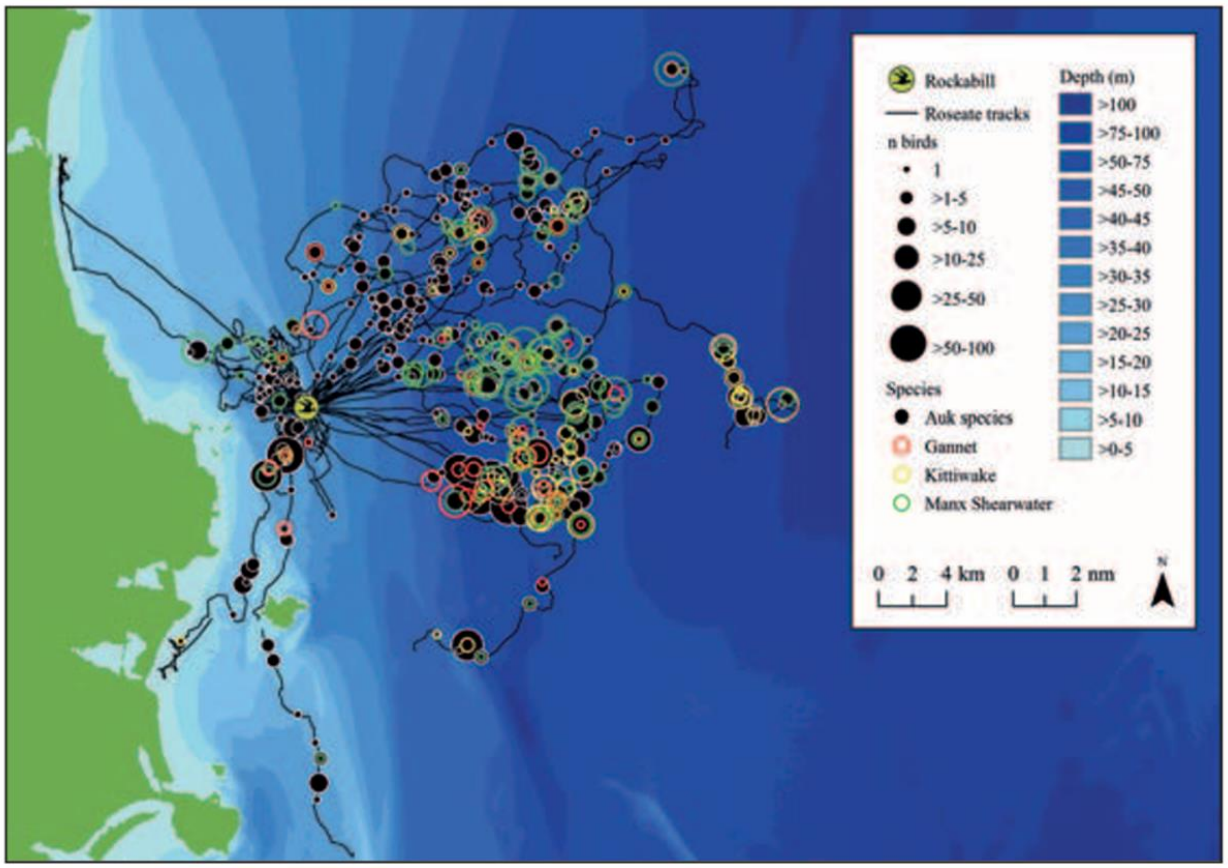


Figure 4: Groups of auks (mainly Guillemots and Razorbills) and other accompanying seabirds including Manx Shearwaters, Northern Gannets and Kittiwakes, attended by tracked Roseate Terns from the Rockabill colony [14]. Bathymetry data from EMODnet Bathymetry Consortium (2018): EMODnet Digital Bathymetry (DTM) [15].

The authors suggest that this relationship occurs because the other seabird species '*help*' the foraging terns by '*pushing*' fish to the top of the water column, making the prey more accessible. By foraging with other seabird species, terns can increase their foraging efficiency and this study highlights how different interconnected bird species can be with each other. An impact on one species group (for example auks) can have ripple consequences for other taxa groups (in this example terns) multiplying any impacts from disturbance and development. It is worth noting that Roseate Terns are also a QI species of the NWIS cSPA and Rockabill SPA, so these ripple impacts could have negative consequences for the Conservation Objectives of this species at two different protected areas. Given how important the NWIS cSPA is to many different species (including the 21 different QI species and the QI species of other ecologically connected SPAs nearby), there could be negative implications for many different species and species relationships if NISA is developed.

Both this study and ObSERVE II highlight the unique high use and importance of the NWIS cSPA, including within NISA's proposed marine footprint, for seabirds on the whole. In a

precautionary approach to offshore wind development, an area as critically important to biodiversity as the NWIS cSPA should not be developed until all other possibilities in less sensitive waters where impacts can be minimised have been explored. Despite the '*substantial body of ecology and environmental survey data*' NISA used to inform the Natura Impact Statement (NIS) Addendum and other FIR documents, we do not agree '*that the site (of NISA's planned development area) remains suitable for the proposed development*'. Rather we believe that the totality of currently available evidence, including the above mentioned ObSERVE II and colony-based studies, have consistently shown that the NWIS cSPA is critical habitat for birds and therefore should not be targeted for offshore wind development and NISA should not be given consent to develop within the cSPA's waters.

2. Importance of NISA's planned development area to specific species

Above, we focused on species groupings and relationships that rely on the critical marine environment that NISA's proposed marine footprint is within, but there are many specific seabird and waterbird species that also rely on the habitat within the NWIS cSPA and could be seriously affected by NISA's development. These species include birds that are QI species, for both the NWIS cSPA and other SPAs ecologically connected to it, and birds with unique sensitivities to offshore wind development, making them vulnerable to impacts from offshore wind when developments are placed in improper areas.

One such species we are seriously concerned will be negatively impacted by NISA's development is Kittiwakes. Kittiwakes are in serious decline in Ireland, with populations declining by 30% between the last two Seabird Censuses [5] and are vulnerable to collision impacts from offshore wind [16]. Our own work with BirdLife International on an Irish-specific avian sensitivity index to offshore wind shows Kittiwake as the most sensitive species to collision impacts in Irish waters of the 52 marine bird species assessed (*in prep*.; more details on this work below in section 4). Within the RFI, ACP had asked for '*further justification to screen out Kittiwake and Lesser Black-backed Gull for the Seas off Wexford cSPA, given that this cSPA is within the species-specific foraging range of the proposed development*…' and we echo this concern. A model of foraging distributions of seabirds that used data from recent censuses of breeding seabirds combined with species-specific foraging distances projected high use and overlap with NISA's proposed marine footprint and the foraging ranges of nesting Kittiwakes [17], and the importance of this habitat for Kittiwakes is also supported by ObSERVE II, which found this area as a top 1% use area within Irish waters for Kittiwakes in summer (Figure 5).

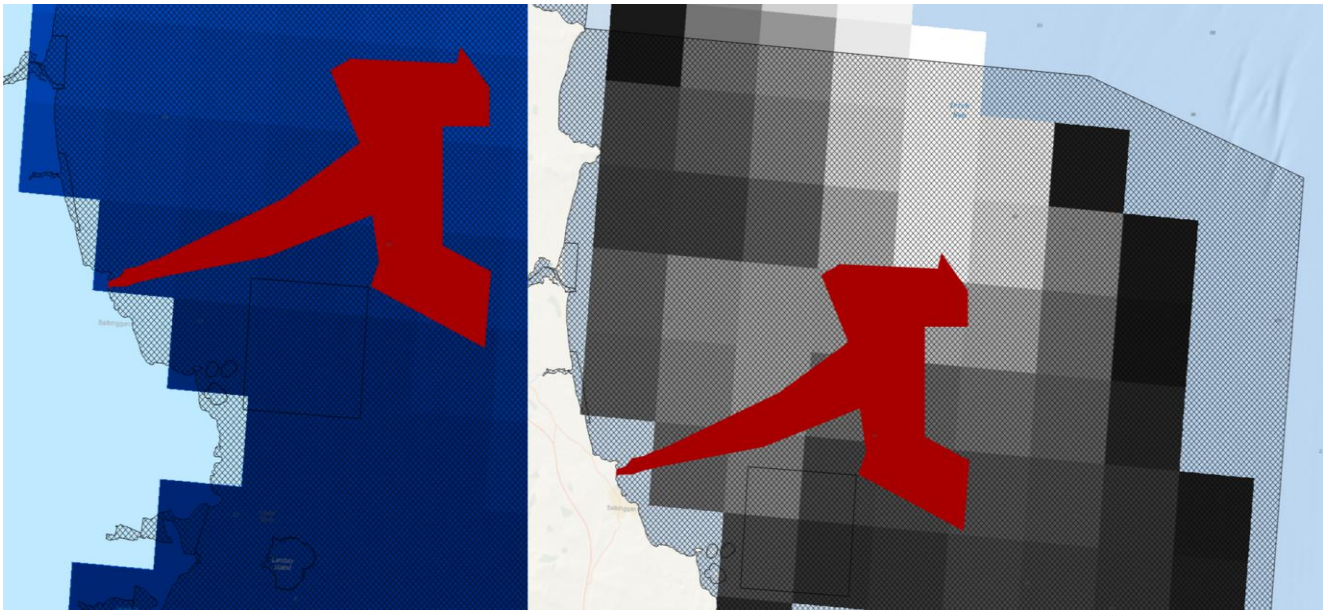


Figure 5: Map of NISA's proposed marine footprint (red polygon), distribution model of Kittiwakes from Clairbaux & Jessopp (2022) (blue raster layer) (left), and a section of ObSERVE II survey data showing the top 1% of Irish waters used by Kittiwakes (black and white raster layer) (right). The darkest shaded areas are the areas with the greatest number of individual Kittiwakes or most important areas as used nationally by Kittiwakes within that top 1%, respectively.

Kittiwakes are not only QI species for NWIS cSPA [6], but also other SPAs ecologically connected to NISA's proposed marine footprint such as Lambay Island SPA [18], Ireland's Eye SPA [19], Howth Head SPA [20], Wicklow Head SPA [21], and Seas off Wexford cSPA [22]. Given that all of these SPAs have Conservation Objectives around protecting and '*restoring*' Kittiwake populations within them, and all could be impacted by NISA's development, it would not be advantageous for the species survival in Ireland if NISA is developed within a proven important habitat for the species. Given the imperiled status of Kittiwakes within Ireland, extreme caution should be exercised to ensure additional pressures do not exacerbate their declines, and we do not believe that building NISA within a protected area critical to Kittiwakes would help Ireland achieve its conservation goals for the species.

Additionally, we disagree with the screening out of Shag (*Phalacrocorax aristotelis*) and Great Cormorant (*Phalacrocorax carbo*; hereby referred to as Cormorant) from impacts from NISA's development and have serious concerns that impacts to these species are still not being considered appropriately within NISA's FIR. ACP specifically asked NISA to '*provide further justification in relation to the screening out*' of Shag and Cormorant from both '*collision effects or displacement impacts*' within the RFI. As part of our own work with BirdLife International on an avian offshore wind sensitivity map (more on this below in section 4), we completed a sensitivity index for marine birds in Ireland to both collision and displacement risks. Our analyses found

that Shag placed within the top 20 of 52 species indexed in Irish waters for displacement sensitivity and Cormorant within the top 20 species in Irish waters for collision sensitivity (*in prep.*). Our sensitivity index was Irish-specific in context, with added weighting for species of national conservation concern, and did not automatically screen out low flight height species from collision risks due to the possibility of collision with turbine bases (i.e. not all collision is with the blades of a turbine and the turbine bases within the marine space still represent a collision risk to flying birds). With how sensitive these species came out in our own Irish-specific sensitivity indexing analysis, we disagree with NISA's assertion that there is *'no plausible impact pathways with respect to both collision risk and displacement effects*' to screen both species out of assessments and believe that the continued screening out of these species, which are both QI species for the NWIS cSPA [6], is a huge oversight. By ignoring potential impact pathways for these two specific QI species who were found to be sensitive to offshore wind impacts in the above study by BirdWatch Ireland and BirdLife International, the detrimental impacts to Cormorants and Shags that could be caused by NISA's development are not accurately accounted for within their environmental assessments.

3. Combining impacts to groups and individual species: Potential impacts of NISA's development on Northwest European tern populations

Our concerns about the siting of NISA's proposed marine footprint in critically important habitat for specific species of birds and for groups of birds, while presented as two separate entities above, can be compatible with each other and amplify potential impacts from NISA across a broader area and meta-populations that rely on this habitat. This potential is best illustrated through examining potential impacts from NISA to terns, an important seabird species group in Ireland, both as a grouping and to the individual species.

Rockabill SPA hosts one of the largest and most important tern colonies in Ireland [9], with nesting Arctic (*Sterna paradisaea*), Common (*Sterna hirundo*), and Roseate Terns. All three of these species are QI species for both Rockabill SPA [9] and NWIS cSPA [6] and, most importantly, Rockabill SPA is the largest Roseate Tern colony in Europe and a critical part of the Northwest European population, with Rockabill acting as the main source population for the subpopulations nesting at Coquet Island SPA in Northumberland, UK and Lady's Island Lake SPA in Wexford, IE [23]. There is continual inter-connection between the three colonies, and this inter-colony movement is illustrated by Redfern et al. (2020a) [24] and supported by annual ring-reading efforts by BirdWatch Ireland staff. Within the RFI, ACP mentioned the data from Perrow et al (2019) [14] and asked that tracking data be '*considered in further detail and used to inform the assessment*'. Perrow et al (2019)'s data shows use of NISA's proposed marine footprint around Rockabill by foraging Roseate Terns, a finding that is further supported by Clairbaux & Jessopp (2022)'s distribution model which shows overlap between Roseate Tern foraging range and NISA's proposed marine footprint (Figure 6).

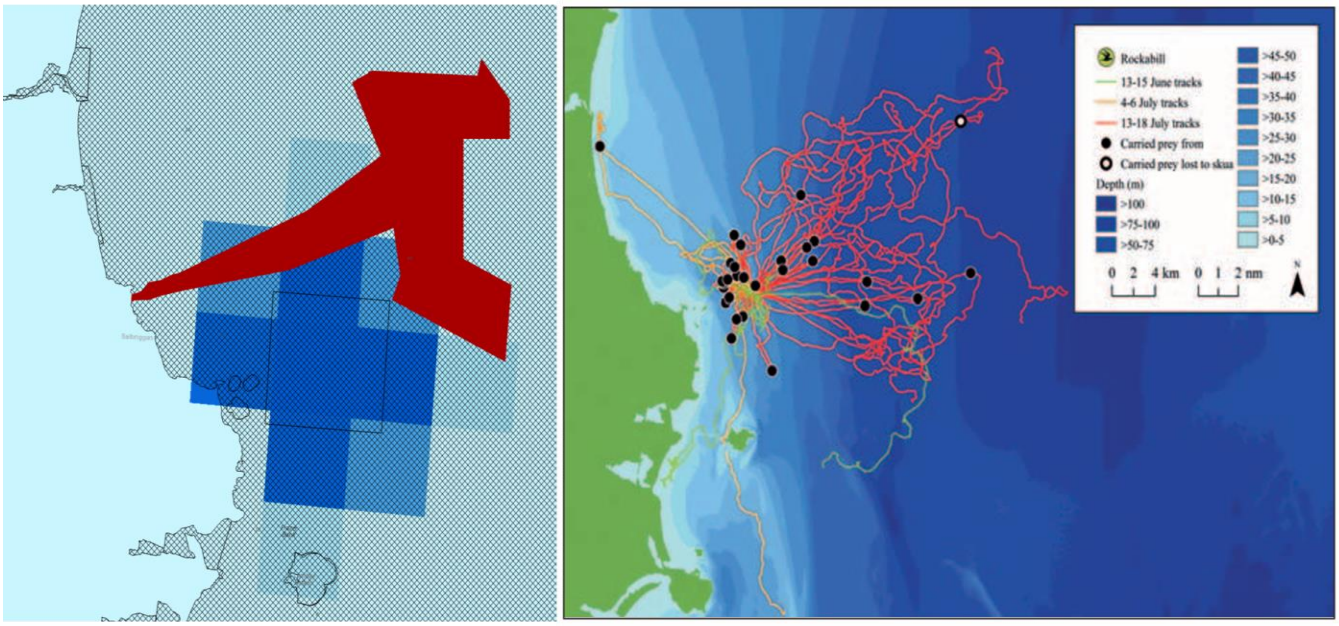


Figure 6: Maps showing the use of the marine environment within the NWIS cSPA and NISA's proposed marine footprint by Roseate Terns. The map on the left is data from Clairbaux & Jessopp (2023) and the map on the right is from Perrow et al. (2019) show the distribution of Roseate Terns within the relevant marine space.

NISA's FIR does not dispute that the marine area it is planning to inhabit is important to terns; in fact, the additional DAS done for the FIR '*recorded a higher proportion of Roseate Terns than the 29 months DAS collected*' before. It was also noted that there was '*relatively low usage*' of NISA's proposed marine footprint '*during the core breeding season and substantially higher numbers during the post-breeding dispersal period*'. In their FIR documentation, they ascertain from this data that they could have lower than expected negative impacts on terns, particularly the terns breeding on Rockabill, but we do not agree with this assumption and believe the evidence points to strong potential that NISA could negatively impact the wider meta-population of Northwest European population.

The Perrow and Redfern studies mentioned above show movement and connectivity between the large Roseate Tern colonies in the post-breeding dispersal period, which is also supported by ring-reading and observations by BirdWatch Ireland staff of hundreds of terns on Rockabill SPA well into August and past the core breeding period [Pers Comm Brian Burke, Senior Seabird Conservation Officer, BirdWatch Ireland October 9th, 2026]. All this suggests that the terns are choosing to stay in the Rockabill marine area, extremely close to NISA's proposed marine footprint, because the habitat is important and suitable beyond the '*core breeding period*'. It is also likely that the individual terns using this area include a high proportion of just-fledged terns from multiple different colonies who are less adept fliers and more vulnerable than adults to impacts at sea [25]. Given this data and information, it is likely that the higher numbers of terns seen by NISA within the post-breeding season are a mixture of the different colonies

with a high number of juvenile birds; therefore, development within this critical habitat could have impacts across all three of the main northwest European colonies of Roseate Terns.

It is widely thought that Common and Arctic Terns follow similar movement patterns to the Roseate Terns described above [Pers Comm Brian Burke, Senior Seabird Conservation Officer, BirdWatch Ireland October 9th, 2026] and terns from numerous Irish and UK colonies could be similarly impacted, with the impacts of NISA having potential to impact to the wider *Sterna* tern meta-population within Irish and UK waters. Within the RFI, ACP states '...*it is a Conservation Objective of the NWIS cSPA to restore the favourable conservation condition…*' and that '...*this 'restore' objective also applies to the same SCIs (Special Conservation Interest) within the ecologically connected SPAs in this area*' referring to the terrestrial colony SPAs ecologically connected to the NWIS cSPA. In this tern example, not only are these species SCIs for the NWIS cSPA, but are also SCIs from other colonies like Rockabill SPA, Lady's Island SPA, and Coquet Island SPA in the UK, all of which are within the same Northwest European meta-population. The '*restore*' objective applying to ecologically connected species and SPAs that also rely on NISA's proposed marine footprint goes beyond the NWIS cSPA, and even beyond the 11 SPAs adjacent or nearby to the NWIS cSPA, as highlighted by the potential for NISA to impact the entire Northwest European breeding tern meta-population across multiple species and countries. Given the overwhelming evidence of high and critical use of NISA's proposed marine footprint for a variety of marine birds, including breeding seabirds that are QIs for multiple ecologically connected SPAs, a precautionary approach to offshore wind in Irish waters cannot be achieved if NISA is consented and built, as the negative consequences for birds could be widespread across both distance and species impacted.

4. Preliminary results from avian offshore wind sensitivity analysis

Finally, BirdWatch Ireland and BirdLife International have been undergoing a project this year to produce an avian offshore wind sensitivity map for Irish waters. This map will be similar to the Irish onshore avian sensitivity map produced in 2015 [26], and show areas of low, medium, high, and very high sensitivity of birds to offshore wind development in Irish waters. While this work is still ongoing, preliminary sensitivity maps of the Irish offshore space show NISA's proposed marine footprint as being located within a very high sensitivity area for birds. This is the highest sensitivity ranking, and preliminary maps have consistently shown the entirety of NISA's proposed marine footprint as located within one of the most sensitive areas for birds in Ireland's marine environment.

As briefly mentioned above, an early part of this project focused on quantifying individual species sensitivities to impacts from offshore wind, namely collision and displacement risks, based on their specific biology and ecology to create a sensitivity index of 52 relevant bird species that use the Irish marine space (*in prep*.). Twelve of the QI species for the NWIS cSPA were found within the top 20 most sensitive species of the 52 marine bird species assessed,

with six species (Kittiwake, Herring Gull, Black-headed Gull (*Larus ridibundus*), Cormorant, Roseate Tern, and Lesser Black-backed Gull) having high collision sensitivity and six (Common Scoter (*Melanitta nigra*), Puffin, Great Northern Diver (*Gavia immer*), Razorbill, Red-throated Diver (*Gavia stellata*), and Shag) having high displacement sensitivity. As mentioned above, Kittiwake was the highest ranked species in the index for collision sensitivity and Common Scoter was the 4th ranked species in the index for displacement sensitivity.

While this work is not finalised or published yet, it is a methodology based on AVIStep, a well-known and highly regarded bird mapping tool [27], and NISA's proposed marine footprint has consistently been found to be within a highly sensitive area for offshore development. Given these findings, and the evidence above on the importance of this marine area for a variety of different birds, we cannot see how the assertions that NISA's development will not have '*adverse effects*' to birds can be true under a precautionary approach to offshore wind development in Irish waters, given the development is within an area of Irish waters specifically designated for the protection of birds and found by analyses to be a highly sensitive area for birds to offshore wind impacts.

Conclusion

We acknowledge that NISA has altered their project plans to attempt to reduce their impact on birds, including increasing the air gap to lower collision risks and spacing out the turbines differently; however, given the high level of importance of this marine habitat for many species of marine birds, we do not believe that these measures do enough for this particular windfarm and will not be commenting on any mitigation measures for NISA as we believe it should not be consented at all. Appropriate siting of offshore wind for birds is critical to limiting negative impacts, particularly because mitigation possibilities are limited [28,29]. NISA, sited in the middle of the NWIS cSPA, within a marine location that is ecologically connected to many other SPAs, and within an area identified as highly sensitive for birds to offshore wind impacts, is an inappropriately sited offshore wind farm and the potential extremely detrimental and irreversible impact it could have on Ireland's birds is not worth the risk of moving forward with development.

The placement of the NISA array goes against the mitigation hierarchy, of which the first step is avoidance [30]. Avoidance is particularly important for birds at the site selection stage, which '*involves spatially placing whole projects so as to avoid areas of high value for biodiversity or ecosystem-services*' [30]. A precautionary approach is crucial during planning and consenting to ensure that birds are not adversely affected by offshore wind developments. In the case of NISA, there is an overwhelming amount of evidence that this marine space is critically important to Irish marine birds. As NISA, and the other Phase I projects, represent the first large-scale commitments and developments of offshore wind in Irish waters, it would be a failure of Irish national marine spatial planning to go ahead with NISA's development within such a sensitive and important marine space ahead of any other areas of consideration. Such ecologically

important areas should only be considered for development when all other areas have been exhausted, if at all, and for that reason, NISA should not receive consent and/or be developed.

Given our serious concerns, we believe that NISA should not be given consent. BirdWatch Ireland is fully supportive of the development of offshore wind, but we rue the lack of preparedness of government to fund the necessary studies in the marine environment ahead of these large offshore developments. It is undermining the urgent need to roll out offshore wind to tackle climate breakdown which is also affecting wild birds.

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