



Arklow Bank Wind Park 2

Environmental Impact Assessment Report

Volume III, Appendix 12.13: Offshore Ornithology Technical Report
- Kittiwake Displacement Evidence Review (RFI March 2026)



MacArthur
Green

Arklow Bank Wind Park 2

Appendix 12.13 Offshore Ornithology Technical Report

Evidence Review for Displacement of Kittiwake From Offshore Wind Farms (RFI March 2026)

Date: 10 March 2026

Tel: 0141 342 5404

Web: www.macarthurgreen.com

Address: 93 South Woodside Road | Glasgow | G20 6NT

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GLOSSARY

Term	Meaning
Arklow Bank Wind Park 1 (ABWP1)	Arklow Bank Wind Park 1 refers to the seven 3.6MW turbines commissioned in 2004 and located within the ABWP2 lease area.
Arklow Bank Wind Park 2 – Offshore Infrastructure	“The Proposed Development”, Arklow Bank Wind Park 2 Offshore Infrastructure: This includes all elements under the existing Maritime Area Consent.
Arklow Bank Wind Park 2 (ABWP2) (The Project)	<p>Arklow Bank Wind Park 2 (ABWP2) (The Project) is the onshore and offshore infrastructure. This EIAR is being prepared for the Offshore Infrastructure. Consents for the Onshore Grid Infrastructure (Planning Reference 310090) and Operations Maintenance Facility (Planning Reference 211316) has been granted on 26th May 2022 and 20th July 2022, respectively.</p> <ul style="list-style-type: none"> Arklow Bank Wind Park 2 Offshore Infrastructure: This includes all elements to be consented in accordance with the Maritime Area Consent. This is the subject of this EIAR and will be referred to as ‘the Proposed Development’ in the EIAR. Arklow Bank Wind Park 2 Onshore Grid Infrastructure: This relates to the onshore grid infrastructure for which planning permission has been granted. Arklow Bank Wind Park 2 Operations and Maintenance Facility (OMF): This includes the onshore and nearshore infrastructure at the OMF, for which planning permission has been granted. Arklow Bank Wind Park 2 EirGrid Upgrade Works: any non-contestable grid upgrade works, consent to be sought and works to be completed by EirGrid.
Array Area	The Array Area is the area within which the Wind Turbine Generators (WTGs), the Offshore Substation Platforms (OSPs), and associated cables (export, inter- array and interconnector cabling) and foundations will be installed.

ACRONYMS

Term	Meaning
ABWP1	Arklow Bank Wind Park 1
ABWP2	Arklow Bank Wind Park 2
ACP	An Coimisiún Pleanála
DAU	Development Applications Unit
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
IBM	Individual Based Modelling
JMS	Joint Method Statement
JNCC	Joint Nature Conservation Committee
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
OMF	Operations and Maintenance Facility

Term	Meaning
ORJIP	Offshore Renewables Joint Industry Programme
OSP	Offshore Substation Platform
OWF	Offshore Wind Farm
RFI	Request for Information
SNCB	Statutory Nature Conservation Bodies
SPA	Special Protection Area
SSE	Scottish and Southern Energy
UCC	University College Cork
UK	United Kingdom
WTG	Wind Turbine Generator

UNITS

Unit	Description
Birds/km ²	Birds per square kilometre (density)
Km	Kilometre
m	Metre (distance)
MW	Megawatt

1 CONSIDERATION OF THE EVIDENCE FOR DISPLACEMENT OF KITTIWAKE FROM OFFSHORE WIND FARMS

1.1 Introduction

1. This note has been prepared on behalf of Sure Partners Ltd (the Applicant) for Arklow Bank Wind Park 2 (ABWP2) in response to the Request for Information (RFI) that was received from An Bord Pleanála (now referred to as An Coimisiún Pleanála (ACP)), on 10 April 2025. The purpose of this note is to provide context and evidence in response to the request from ACP regarding the assessment of black-legged kittiwake (hereafter ‘kittiwake’) with due consideration to the associated comments in the observation that was submitted by the Development Applications Unit (DAU) on 2 August 2024 as part of the statutory consultation process.
2. This note relates specifically to the requests from ACP and the DAU to consider NatureScot (2023)¹ guidance which advises that kittiwake is a species which should be assessed for displacement risk. The scientific evidence and professional judgement on the appropriateness of considering displacement has been presented herein and it has been concluded that there is no scientific justification for assessing this species for displacement.

1.2 Displacement Assessment Guidance

3. The primary seabird related impacts of concern for offshore wind farms (OWFs) are collision risk and displacement. This note focusses on displacement only given the nature of the request from ACP.
4. There is no Irish guidance on the assessment of seabird related impacts from offshore wind farms (OWFs), including guidance on how to undertake such an assessment and/or which species should be considered at risk of displacement.
5. Guidance on which species should be assessed for displacement at UK OWFs is contained in a note² that was produced jointly by UK statutory nature conservation bodies (SNCBs). This is the accepted industry standard for displacement assessments for OWFs³. This Joint SNCB note sets out the evidence for avoidance behaviour at OWFs for a wide range of species and ranks them in terms of their predicted risk of displacement impacts.

¹ <https://www.nature.scot/doc/guidance-note-8-guidance-support-offshore-wind-applications-marine-ornithology-advice-assessing#species-to-be-assessed>

² Joint SNCB Note (2017) Interim Displacement Advice Note. [updated 2022]

³ Although this document includes the term ‘interim’ in its title it has been the basis for UK displacement assessments since it was first drafted in 2017, including following minor revisions in 2022. It is therefore treated by UK SNCBs and industry as the current best practice to follow for the assessment of displacement of seabirds for OWF.

6. The Joint SNCB note states the following in relation to screening for displacement:

SNCB advice section – screening species for displacement assessment

... “it is unlikely that cormorant and gull [noting that this includes kittiwake] species will need to be routinely assessed for displacement, as a number of empirical studies have demonstrated these species can also be attracted as well as display no noticeable reaction to the presence of OWFs (e.g. Leopold et al. 2013; Vanermen et al. 2014; Petersen et al. 2006; Mendel et al. 2014).

As a general guide, any species scoring 3 or more under either category (‘Disturbance Susceptibility’ or ‘Habitat Specialization’) in Table 1, and which is present in the OWF site or buffer should be progressed to the matrix stage unless there is strong empirical evidence to the contrary.”

7. In the review of seabird species’ susceptibilities to displacement in the Joint SNCB note kittiwake score 2 out of 5 for both ‘disturbance susceptibility’ and ‘habitat specialisation’. Kittiwake are therefore below the threshold (a score of 3 or more) for inclusion in displacement assessments. Kittiwake share this status with almost all other gull species which are generally regarded as insensitive to disturbance from human activity. For example, Furness et al. 2013⁴ state that gulls are among the species that seem very unlikely to be affected by displacement.
8. Despite the clear guidance in the Joint SNCB Note¹ the UK SNCBs are however not fully aligned in their requirements for assessment for kittiwake displacement. NatureScot require kittiwake to be assessed for displacement from Scottish OWFs but Natural England and Natural Resources Wales do not require this for the assessment of OWFs in English or Welsh waters.
9. It is unclear on what basis NatureScot have included kittiwake as a species for which displacement should be assessed, since their guidance on this topic states:

“The priority species for assessment of displacement effects will typically be diver and sea duck species, guillemot, razorbill, puffin and gannet. Section 5 in the joint SNCB guidance note [that has been outlined in the previous section] sets out a general guide for considering whether a displacement or barrier effects assessment is required.”

10. NatureScot in their own guidance therefore omits kittiwake as a species for which a displacement assessment is required and makes clear reference to the Joint SNCB note for determining species selection (Section 5: Selection of species for displacement assessment), in which, as already described, kittiwake is identified as a species below the threshold for inclusion for displacement assessment.
11. Prior to 2017 NatureScot did not require kittiwake to be assessed for displacement as demonstrated by their advice to the Seagreen wind farm application⁵ which stated:

“there was no need to include kittiwake, the data available from post construction monitoring indicate no significant avoidance behaviour by this species”

⁴ Furness R. W., Wade, H. M. and Masden E.A., 2013. Assessing vulnerability of marine offshore wind farms. Journal of Environmental Management 119 pp.56-66.

⁵ Seagreen is Scotland’s largest offshore wind farm – It is a joint venture in which SSE Renewables led on the development and construction of the windfarm, supported by TotalEnergies.

12. However Marine Scotland Science (a branch of the Scottish Government), at the request of Scottish Ministers (i.e. not the SNCBs), advised that a 30% displacement rate should be applied for the Seagreen project⁶. This appears to have prompted NatureScot to change their position, notwithstanding the lack of scientific evidence to support this revised position.
13. As discussed above, only NatureScot requests the inclusion of kittiwake in displacement assessments. Neither Natural England nor Natural Resources Wales⁷ require this, presumably in acknowledgement of the recommended methodology in the Joint SNCB note.
14. In Welsh waters beyond 12 nautical miles, the JNCC are the SNCB. It is only with respect to the most recent Welsh OWFs (Mona and Morgan) that JNCC has made the request to consider the displacement of kittiwakes. As with the NatureScot deviation from the guidance, no evidence has been presented in support of this position by JNCC.
15. Notably, the Morecambe wind farm, although located close to Mona and Morgan is within English waters for which Natural England is the SNCB, and therefore this project was not required to include displacement impacts for kittiwake (as this was classified as an English project, rather than a Welsh one, the JNCC were not involved. Note that JNCC are the SNCB responsible for casework for projects in Welsh waters beyond 12 nautical miles, while in English and Scottish waters Natural England and NatureScot are the SNCB both within and beyond 12nm).
16. Thus, while NatureScot require kittiwake displacement to be assessed, and JNCC appear to have followed this lead in two recent wind farm applications, Natural England’s position remains that this is not required and that kittiwake is not a species at risk of displacement. It is also worth noting that this has been (and remains) Natural England’s advice for more than 10 large wind farms which have been consented in the North Sea which have breeding season connectivity to the largest kittiwake colony in the UK at the Flamborough and Filey Coast Special Protection Area (SPA).

1.3 Irish Phase 1 Projects – Application of Guidance

17. In the absence of any Irish guidance and to assist ACP with their assessment of similarly timed applications for multiple OWF projects on the east coast, a Joint Method Statement (JMS) was prepared by the Phase 1 projects and circulated as part of the pre-application consultation process. The competent experts for each of the Phase 1 Projects reviewed the relevant guidance and best available scientific evidence, including the Joint SNCB note referred to above and NatureScot’s more recent approach, in order to propose the best practice approach to facilitate a consistent, robust assessment of displacement of kittiwake among other matters.
18. The JMS was originally submitted to the National Parks and Wildlife Service (NPWS) in December 2022 and it followed the evidential approach, as per the Joint SNCB note, and stated:

“Kittiwake will not be assessed for displacement because they have low habitat use specificity and have considerably large foraging ranges over which they are likely to find

⁶ https://marine.gov.scot/sites/default/files/00524860_1.pdf

⁷ Statement in the Mona Displacement assessment: NRW do not recommend that displacement is assessed for kittiwake as we currently consider the evidence base to be insufficient hence we have not provided advice/comment on this. [https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010137-000973-F6.5.2_Mona_ES_Offshore%20Ornithology%20Displacement%20TR%20F01_F02%20\(tracked\).pdf](https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010137-000973-F6.5.2_Mona_ES_Offshore%20Ornithology%20Displacement%20TR%20F01_F02%20(tracked).pdf)

alternative favourable foraging habitat. Additionally, there is limited evidence that they are displaced by wind farms.”

19. During the development of the JMS the competent experts for each of the Projects concluded that, on the basis of the best available evidence, kittiwake do not avoid offshore wind farms and that this species should therefore not be assessed for displacement.

1.4 Response to JMS Review

20. NPWS commissioned a review of the JMS which was received in November 2023. This review was conducted by primarily Scottish based ornithologists and/or consultants most used to undertaking assessments in Scotland. This stated:

“There is a need to provide evidence underpinning the assertion of low habitat use specificity. The phrase “considerably large foraging range” is unclear, and is not a simple comparison with the list of species proposed for displacement assessment that includes Northern Gannet. There is a need to clarify the ‘limited evidence’ for displacement more fully – there is at least some evidence for displacement of Black-legged Kittiwake (see Vanermen & Stienen 2019). Therefore, a precautionary approach would be to include this species in displacement assessment. Uncertainty in the extent of displacement (displacement rate) can be varied using the Displacement Matrix and Individual Based Modelling (IBM) approaches.”

21. The evidence for low habitat use specificity in the JMS is derived from Furness et al. (2013)⁴, which reviewed data for a wide range of seabird species to produce sensitivity scores for wind farm impacts (focused on Scottish sites). This was updated and expanded in Bradbury et al. (2014)⁸ and applied to English sites. Both reviews identify kittiwake as having low disturbance susceptibility (2 out of 5) and low habitat specialisation (2 out of 5). Furness et al. (2013)⁴ give kittiwake a displacement risk score of 6 and stated that ‘species with a score below 8 seem very unlikely to be affected by displacement’, while Bradbury et al. (2014)⁸, classify kittiwake as at ‘very low’ population risk of displacement in English waters. The joint SNCB note¹ also uses these scores as previously outlined.
22. The description in the JMS of kittiwake foraging range as being ‘considerably large’ is based on the fact that kittiwake are regarded as one of the species which travels relatively long distances on foraging trips (the mean maximum estimate in the breeding season is over 150km, Woodward et al. 2019⁹). This indicates that, even if kittiwake were to be displaced from a site, the impact of displacement would be minimal since there will be a large area of alternative foraging locations available within that distance. Considering these aspects of kittiwake ecology (i.e. low sensitivity to disturbance and large foraging range), the likelihood of birds being displaced/impacted by displacement is therefore low. Further, even if there is some risk of displacement, the high habitat flexibility means the consequences will be so small as to be inestimable, since alternative resources will almost certainly be available elsewhere within their foraging range.

⁸ Bradbury, G., Trinder, M., Furness, B., Banks, A.N, Caldow, R.W.G. and Hume, D.,2014. ‘Mapping Seabird Sensitivity to Offshore Wind Farms’. PLoS ONE. 9(9): e106366

⁹ Woodward, I., Thaxter, C.B., Owen, E. & Cook, A.S.C.P. (2019). Desk-based revision of seabird foraging ranges used for HRA screening. Report by the British Trust for Ornithology on behalf of NIRAS and The Crown Estate. BTO Research Report No. 724, 139pp.

23. Similarly, use of the term ‘limited’ in the JMS with respect to the evidence for displacement could more accurately be stated as ‘inconsistent’, as used by Vanermen and Stienen (2019)¹⁰ for kittiwake (and other gulls). Kittiwake are highly mobile species which are reported on some occasions as being present in OWFs at high densities and on other occasions at low densities. This could be interpreted as indicating displacement occurs some of the time. However, a much simpler and more plausible explanation is that these differences are due to chance: sometimes kittiwake distributions overlap with OWFs farms and sometimes they do not, but the presence of the turbines themselves in any OWF is not a determinant of these patterns.

1.5 Studies of Kittiwake Displacement

24. When considering the evidence at operational OWFs, the reported conclusions from monitoring studies of kittiwake responses to OWFs are varied. Some studies report no apparent displacement (e.g. Vanermen et al. 2023¹¹) and others report large effects (e.g. Peschko et al. 2020¹²). However, almost all studies that have considered kittiwake have compared bird densities before and after the construction of that OWF.
25. While this might be considered a sensible approach when comparing regional distributions, at the scale of OWFs seabird distributions are highly variable between years, irrespective of the presence of marine developments. To illustrate this variation, the counts of kittiwake recorded during the digital aerial surveys that have been used to characterize the site (i.e. which were the basis of the impact assessment) are presented in Figure 1. It is clear that the counts from the same month in one year compared to that from the next are highly variable. For example, no kittiwake were recorded in January of year 1 and 1,064 were recorded in January of year 2. And importantly these surveys were undertaken across two years when there was no change in use at the site or activities occurring within the site (i.e. there were no apparent outside factors that could be linked to changes). Thus, since kittiwake numbers are naturally highly variable from year to year, it is clear that ascribing any apparent changes in distribution between pre- and post-construction surveys is unreliable, and this is likely the cause for the different results reported: some studies find increases in kittiwakes, some find no change and some find decreases. The simplest explanation is these are chance observations of a species whose distribution at the scale of wind farm developments is highly variable.
26. Thus, any reductions observed at OWFs which are attributed to displacement can more readily be explained as small scale natural variations in local density within larger areas of more consistent abundance. Indeed, assuming the distribution of seabirds within a region will be identical from one year to the next would be highly surprising for species such as kittiwake that consume mobile prey (e.g. fish) and have a relatively large foraging range as previously outlined.

¹⁰ Vanermen, N. & Stienen, E.W.M. (2019). Seabirds: displacement. In: Perrow, M.R. (ed). *Wildlife and Wind Farms, Conflicts and Solutions Volume 3 Offshore: Potential Effects*. Pelagic Publishing, Exeter, UK: pp. 174–205.

¹¹ Vanermen, N., Courtens, W., Van De Walle, M., Verstraete, H., & Stienen, E. (2023). Seabirds and offshore wind farms – Displacement monitoring 2.0. In *Environmental impacts of offshore wind farms in the Belgian part of the North Sea: Progressive insights in changing species distribution patterns informing marine management* (pp. 85-101)

¹² Peschko V, Mendel B, Müller S, Markones M, Mercker M, Garthe S (2020) Effects of offshore wind-farms on seabird abundance: strong effects in spring and in the breeding season. *Mar Environ Res* 62:105157. <https://doi.org/10.1016/j.marenvres.2020.105157>

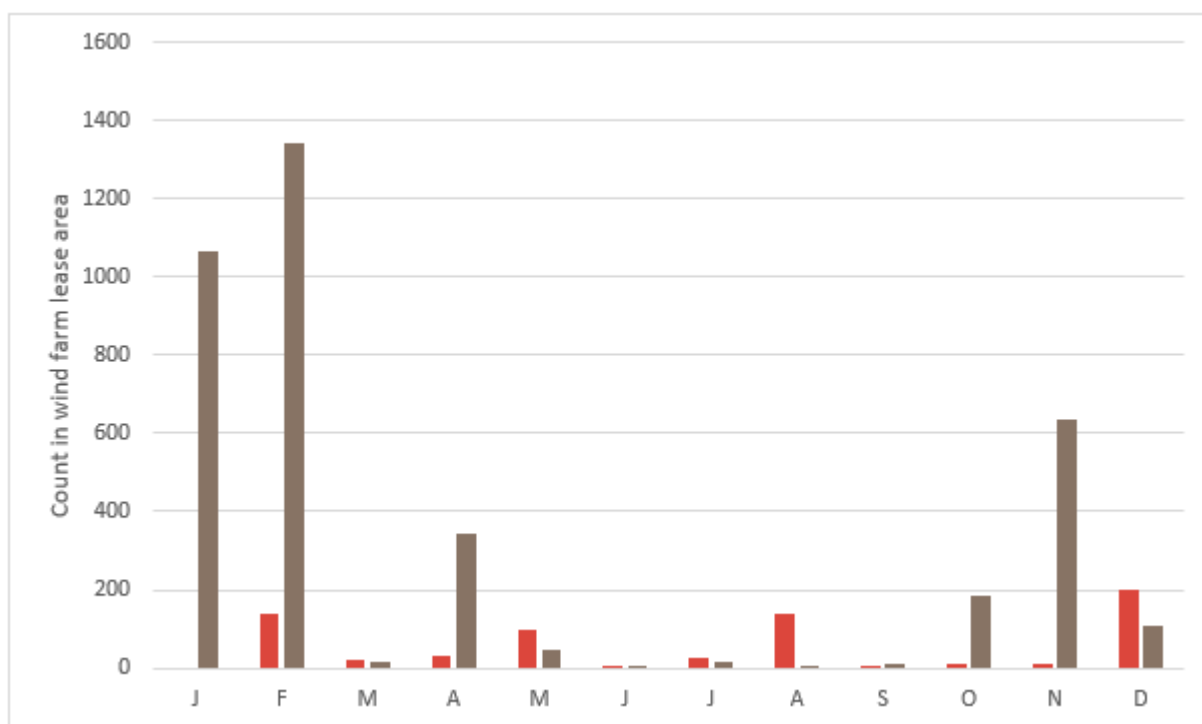


Figure 1. Counts of kittiwake recorded in the ABWP2 lease area by digital aerial survey in year 1 (grey bars) and year 2 (red bars). These data were used to estimate the densities and abundances for each calendar month which were the basis of the impact assessment (see Arklow Technical Reports 12.01, 12.02, 12.03 and 12.05 for details).

27. Therefore the weight of evidence indicates that many seabirds, including kittiwake, are not actively displaced by OWFs but instead have variable distributions which in some studies have been erroneously identified as representing displacement (e.g. if they coincide with before and after data collection periods), but which in fact are simply normal year to year variations.
28. A recent review of studies by Lamb et al. (2024)¹³ conducted a form of meta-analysis using data collected primarily at early phase OWFs (i.e. small ones) in the southern North Sea and reported that avoidance responses:
- ...“were mainly neutral or slightly positive for gulls”...*
29. [‘gulls’ here includes kittiwake], meaning that these species were either present at similar or higher numbers post-construction. Similar reviews of seabird vulnerability to renewable developments have also found no consistent evidence for kittiwake displacement (e.g. Dierschke et al. 2016¹⁴, Wade et al. 2016¹⁵). Dierschke et al. (2016)¹⁴ scored kittiwake responses as 2.7 on a 1

¹³ Lamb J., Gulka J., Adams E., Cook A. and Williams K.A. 2024. A synthetic analysis of post-construction displacement and attraction of marine birds at offshore wind energy installations, Environmental Impact Assessment Review, Volume 108

¹⁴ Dierschke, V., Furness, R.W., Garthe, S., 2016. Seabirds and offshore wind farms in European waters: avoidance and attraction. Biol. Conserv. 202, 59–68.

¹⁵ Wade H.M., Masden. E.A., Jackson, A.C. and Furness, R.W. (2016) ‘Incorporating data uncertainty when estimating potential vulnerability of Scottish seabirds to marine renewable energy developments’. Marine Policy 70: 108–113

to 5 scale (1 strong avoidance, 5 strong attraction), making it clear that kittiwake sit centrally within this spectrum of attraction/avoidance. Indeed of the 11 studies they considered in this review, 2 reported strong avoidance, 2 reported strong attraction and 5 reported no effect. Further, Wade et al. (2016)¹⁵ estimated the degree of uncertainty around the species rank scores for wind farm sensitivity. The degree of uncertainty for kittiwake in the ‘displacement caused by structures’ was the lowest rating (i.e. ‘very low’ uncertainty).

30. A recent joint industry research project in the UK funded by The Carbon Trust’s Offshore Renewables Joint Industry Programme (ORJIP) called ‘Improving understanding of distributional change for relevant seabird species’ has analysed before-after datasets for nine UK wind farms has also found no evidence that kittiwakes are displaced from OWFs¹⁶.
31. Trinder et al. (2024)¹⁷ designed a study to estimate displacement effects that avoided the confounding effects of inter-annual variations by comparing seabird distributions within an operating OWF with those that might be observed if the birds distribute themselves randomly. This study found no evidence that kittiwake densities around turbines were any different from those expected by chance, and spatial modelling found no indication of overall avoidance of the wind farm. This study is highly relevant to ABWP2, since it was conducted across two breeding seasons at the Beatrice Wind Farm (operated by SSE in the UK) which is located a similar distance from a kittiwake colony. This is the only study investigating displacement which has not been prone to between year effects which, as discussed, can lead to natural distributional changes being described as evidence of displacement. Therefore, while the results differ from those found elsewhere, by removing inter-annual distributional change, the results are considered to provide a more reliable indication of responses to wind turbines and should therefore be given greater weight.
32. Thus, overall there is no compelling evidence that kittiwake experience displacement from OWFs and instead the weight of evidence indicates that any distributional changes that have been ascribed to displacement are in fact reporting coincidental changes between years. There is therefore no ground for assessing displacement as an impact for this species, and even if this was recommended on the grounds of precaution, this would be to disregard the evidence that there is low uncertainty in this position.

1.6 Approach to Assessment in the Arklow Bank Wind Park 2 EIAR and NIS

33. In addition to the JMS, which has been previously discussed, the Arklow EIAR (Ch 12) screened kittiwake out of displacement on the basis of the following lines of evidence:

Kittiwake	Low	Screened OUT as not known to avoid wind turbines (low macro avoidance rate) and shows low displacement at operational windfarms.
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¹⁶ These results are not currently public and have only been presented in draft form at the time of writing [17/09/2025].

¹⁷ Trinder M, O’Brien SH and Deimel J (2024) A new method for quantifying redistribution of seabirds within operational offshore wind farms finds no evidence of within-wind farm displacement. *Front. Mar. Sci.* 11:1235061. doi: 10.3389/fmars.2024.123506

And:

“12.9.2.97 Seabird species vary in their reactions to the presence of operational infrastructure and to the maintenance activities (particularly ship and helicopter traffic) that are associated with them. For example, vessel activity and the lights on wind turbines and associated ancillary structures can directly attract (or repel) certain species of birds and affect migratory behaviour on a local scale. Garthe and Hüppop (2004) presented a scoring system for disturbance factors such as ship and helicopter traffic, which is used widely in offshore wind farm EIAs. Dierschke et al., (2016) reviewed all available evidence from operational offshore wind farms on the extent of displacement or attraction of seabirds in relation to these structures. They found strong avoidance of operational offshore wind farms by great crested grebe, red-throated diver, black-throated diver and gannet. They found weak avoidance by long-tailed duck, common scoter, fulmar, Manx shearwater, razorbill, guillemot, little gull and Sandwich tern. They found no evidence of any consistent response by eider, kittiwake, common tern and Arctic tern, and evidence of weak attraction to operating offshore wind farms for common gull, black-headed gull, great black-backed gull, herring gull, lesser black-backed gull and red-breasted merganser, and strong attraction for shags and cormorants.”

“12.9.2.98 Post-construction monitoring of the Beatrice wind farm (MacArthur Green 2023) has found no indication of wind farm avoidance behaviour in breeding kittiwake, guillemot, razorbill and puffin from the nearby East Caithness Cliffs SPA.”

34. These statements comprehensively support screening kittiwake out of the displacement assessment.

1.7 Evidence Against Kittiwake Displacement at Arklow Bank Wind Park 2

35. Baseline digital aerial surveys have been conducted between March 2018 and April 2020, August 2023 and June 2024 and February to July 2025, 43 in total. As presented in the EIAR, these surveys show no indication that kittiwake avoid the existing seven turbines and surrounding area (Refer to Figure 2). If 30% of kittiwakes were being displaced within 2 km of these turbines, as would be the prediction following the NatureScot guidance, this would be evident as fewer observations would be recorded near the existing turbines. There is no evidence that this has occurred at ABWP1, and some of the highest densities were in fact recorded in the area immediately around the existing turbines.



Arklow Bank Wind Park 2

Kittiwake Records (2018 - 2025)

Legend

- ABWP2 Array Area
- + ABWP1 WTGs
- ▲ ABWP1 Existing Met Mast
- ABWP1 Existing Export Cable
- ABWP1 Array Area
- ABWP2 Cable Corridor and Working Area
- ABWP2 Array Area 2 km Buffer
- ABWP2 Array Area 4 km Buffer

Kittiwake Records

- Autumn Migration
- Spring Migration
- Breeding



Notes
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, GEBCO, Garmin, NaturalVue. Contains Ordnance Survey data © Crown copyright and database rights (2022), OS OpenData.

Coordinate System:
ETRS 1989 UTM Zone 30N
0 4 7 km
0 2 3 nm

Scale	Date	Drawn By	Checked By	Approved By
1:175,000 @ A3	08/01/2026	KS	MM	MT

Sultes B2 & C2
Higher Mill
Higher Mill Lane
Buckfastleigh
Devon
TQ11 0EN
www.gobeconsultants.com
+44 (0)1626 323890



Figure Number 2

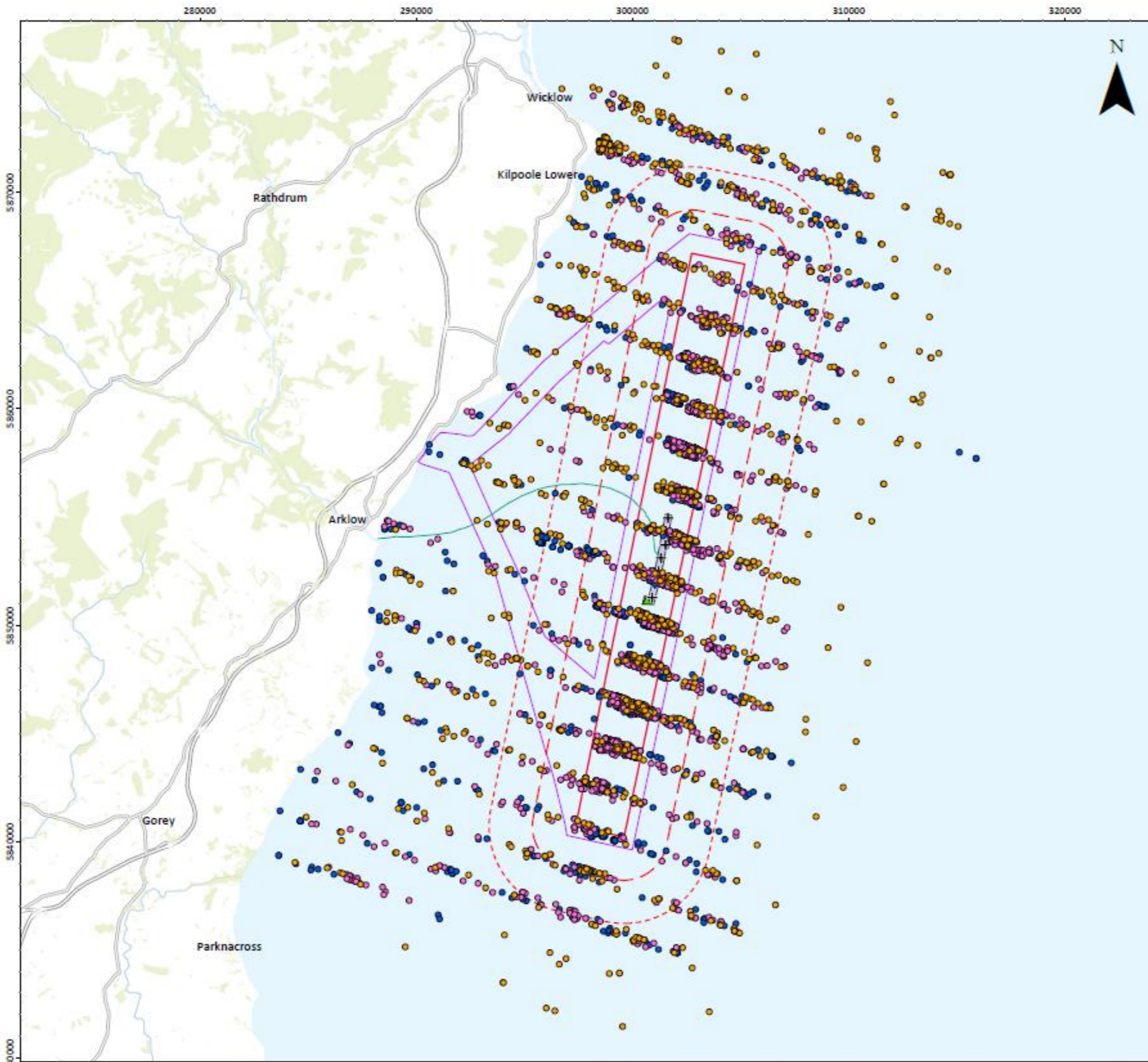


Figure Reference: 413.V01929.00XM2.0013.0 TA_2_KI

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Figure 2. Kittiwake distribution map presented in the EIAR Tech. Appx 12.8, with central region in the vicinity of the existing turbines enlarged for clarity.

1.8 Conclusion

36. The ABWP2 RFI has noted that it is not considered appropriate to screen out kittiwake for displacement and requested a re-examination of the displacement impact on kittiwakes with consideration of NatureScot (2023)¹ guidance. As detailed in this document, this request and the NatureScot advice, is at odds with both the Joint SNCB note on this topic for the UK (as applied by Natural England and Natural Resources Wales), which does not identify kittiwake as a species at risk of displacement, and also the accumulating scientific evidence from monitoring studies conducted at operational OWFs including local evidence gathered at ABWP1. It is increasingly apparent that kittiwake, along with other gull species, do not respond negatively to OWFs and therefore there is no scientific justification for assessing this species for displacement.