



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES
2010

Outer Dowsing Offshore Wind Farm

Appendix F1 to the Natural England Deadline 1 Submission

**Natural England's comments on Offshore and Intertidal Ornithology
[PD1-071, PD1-081, PD1-086, PD1-087, PD1-088, PD1-091 and PD1-092]**

For:

The construction and operation of Outer Dowsing Offshore Wind Farm located approximately 54 km from the Lincolnshire Coast in the Southern North Sea.

Planning Inspectorate Reference EN010130

24th October 2024

Natural England's Advice on documentation submitted and updated related to Offshore and Intertidal Ornithology.

In formulating these comments, the following documents have been considered:

- [AS1-064] 6.3.12.1 Chapter 12 Appendix 1 Intertidal and Offshore Ornithology Technical Baseline
- [PD1-071] 15.3 The Applicant's Response to Representation Responses - Natural England
- [PD1-081] 15.9 Environmental Report for the Offshore Restricted Build Area (ORBA) and Revision to the Offshore Export Cable Corridor (ECC)
- [PD1-086]-15.9D ORBA and Revision to the Offshore ECC Ornithology Baseline Summary
- [PD1-087] 15.9E ORBA and Revision to the Offshore ECC Appendix E Collision Risk Modelling
- [PD1-088] 15.9F ORBA and Revision to the Offshore ECC Appendix F Offshore Ornithology Displacement Assessment
- [PD1-089] 15.9G Offshore Restricted Build Area and Revision to the Offshore Export Cable Corridor Appendix G MRSea Modelling for Offshore Ornithology
- [PD1-091] 15.10 HRA for the ORBA and Revision to the Offshore ECC
- [PD1-092] 15.10A HRA for the ORBA and Revision to the Offshore ECC Appendix A Offshore and Intertidal Ornithology Apportioning

1) Summary of Advice

Original Application Documents - Errors and Inconsistencies

1. Natural England welcomes the corrections made by the Applicant to the errors and inconsistencies identified within document 6.3.12.1 Chapter 12 Appendix 1 Intertidal and Offshore Ornithology Technical Baseline [APP-162], which has now been superseded by version 2 [AS1-064]. This issue raised in our Relevant Representations [RR-045] Appendix F is now addressed.

Assessment of impacts without the Offshore Restricted Build Area (ORBA), or comparing with and without ORBA

2. The Applicant has endeavoured to present assessment outputs based on Natural England's advised apportioning approach within the new Offshore Restricted Build Area (ORBA) documents submitted on the 19-Sep-2024, as requested by Natural England in our Relevant Representations [RR-045]. This approach is welcomed.
3. The ExA has set out within the Rule 8 Letter [PD-011] that responses to submissions from the Applicant which relate to this matter are not required for Deadline 1. Natural England has however reviewed the Applicant's methodological approach, to ensure that progress is continued towards agreeing the approach to the ornithological assessment. This initial review has identified some methodological issues which are set out within our detailed comments in Table 1 below. Natural England will review and comment in full on these documents at Deadline 2, subject to clarity being provided by the ExA regarding the status of the ORBA within the Examination.
4. Notwithstanding this and as stated above, the documents submitted by the Applicant in response to the Section 51 advice (for the original build area pre-ORBA) were corrected for errors, but not updated to include Natural England's full recommended approach to the assessment, and inclusion of displacement matrices for upper and lower confidence limits, the means of abundance values, along with nocturnal activity factors (NAFs) as set out in Garthe and Hüppop (2004) and clarity of use of the full breeding season. These updated assessment approaches within the ORBA documents are welcomed, though we highlight that until the status of the ORBA within the Examination is clarified, these issues will be marked as unresolved in our Risk and Issues log. However, the limitation is that Natural England remains unable to make a judgement on the impacts from the full build area without the ORBA, or a comparison of impacts with and without the ORBA.

Full assessment Across Multiple Documents and/or In-combination

5. The new ORBA documents only present an assessment of the impacts from the array during the Operation and Maintenance (O&M) phase and therefore, Natural England are yet to see an assessment of impacts during the Construction and Decommissioning phases following Natural England's recommended approach. Natural England's advice is that displacement impacts are assumed to be 50% of the impacts during the O&M phase. It is therefore possible to infer the mortality figures for the Construction and Decommissioning phase with the ORBA from the new documents. Nonetheless, the full annual impacts across phases presented for each

species are not presented, and this poses difficulty reviewing the overall impacts of the project across its timeline. Similarly, the Applicant has stated they are not intending to update the in-combination assessment because the conclusions of the RIAA have not changed. This will result in no agreed in-combination totals to take forward to use in future projects.

- 6. To address the above, we strongly recommend that the Applicant submit a fully updated Environmental Statement chapter and RIAA assessment for offshore ornithology, including cumulative and in-combination assessments once the outstanding matters are resolved.**

Consideration of long-term impacts of Highly Pathogenic Avian Influenza (HPAI) on populations within the Habitat Regulations Assessment (HRA) process

7. In our Relevant Representations, we advised that some consideration should be given within the Habitat Regulations Assessment (HRA) process regarding the potential for long-term implications of Highly Pathogenic Avian Influenza (HPAI) which could lead to a reduction in the resiliency of populations. In addition, to how this may impact the need for conditions to allow a population to recover to, rather than be maintained at, a target level.
8. In their response [RR-071], the Applicant has stated why they do not feel this is necessary, specifically that recovery at colonies has already been evidenced by increases in the numbers of Apparently Occupied Nests (AON)s at a select number of colonies. Natural England do not consider increases in the number of AONs alone to provide sufficient evidence that populations are recovering, since it is unclear to what extent non-breeding birds will have 'backfilled' the spaces left by high levels of mortality due to HPAI. Furthermore, it is unclear at this stage what resistance has been developed within populations of different species, how long this will last, and whether further outbreaks of HPAI will impact populations in the future. Natural England advice therefore remains unchanged. Even if the inclusion of HPAI does not alter conclusions within the RIAA, the uncertainties surrounding future impacts from issues such as climate change and HPAI to seabird populations should still be considered in the Applicant's assessments.

2) Detailed Comments

9. Natural England's detailed comments to the methodological approach to the offshore ornithology assessment for the ORBA and revised export cable corridor is presented in Table 1 below.

Table 1: Natural England’s Detailed Comments related to Offshore and Intertidal Ornithology Analytical Methodologies presented within Documents relating to the Applicant’s proposed ORBA: PD1-071, PD1-081, PD1-086, PD1-087, PD1-088, PD1-091, PD1-092]

NE Ref	Section	Key Concern and/or Update.	Natural England’s Advice to Resolve Issue
F1.1	[PD1-091] 15.10 HRA ORBA & [PD1-092] 15.10A HRA ORBA Apportioning	As stated within our Relevant Reps [RR-045], Natural England does not support the use of a theoretical stable age structure (Furness 2015) to apportion impacts to adults from Special Protection Area (SPA) colonies for Habitats Regulations Assessment (HRA) during the breeding season. The Applicant has provided updated documents presenting Natural England’s approach (to use, in the absence of site-specific ageing data, the precautionary approach of assuming 100%) alongside their own approach using the stable age structure.	Natural England welcomes the presentation of our approach to apportioning of adults alongside the Applicant’s approach.
F1.2	[PD1-086] 15.9D Environmental Report for ORBA and ECC	The Applicant has derived adult proportions from DAS data for kittiwake, gannet and lesser black-backed gull (LBBG) as the proportion of birds identified as adult out of all aged birds. This has been done by calculating the proportion of adults for each survey that falls within the relevant breeding season for that species, and averaging these to produce the site-specific adult proportions, as follows: Gannet: 0.86 Kittiwake: 0.90 LBBG: 0.50 However, this averaging includes surveys when no birds are recorded, and the ‘proportion of adults’ is therefore 0%. Natural England suggests that this is therefore not a valid calculation and has resulted in an underestimate of the proportion of adults, particularly for LBBG where several surveys during the breeding season recorded no birds.	Natural England advises that a more valid and simple way of calculating proportion of adults from DAS data is to follow the method used by Morgan Offshore Wind Farm, which is to divide the total number identified as adults by the total number of aged birds. This gives the following adult proportions: Gannet: 0.90 Kittiwake: 0.91 LBBG: 0.66 We advise that the Applicant’s assessment is updated with the above rates.
F1.3	[PD1-088] 15.9F Displacement Appendix F	The Applicant has presented displacement matrices for upper and lower confidence limits, as well as the means, of abundance values, as requested in Natural England’s Relevant Reps [RR-045].	Natural England welcomes the addition of these.

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F1.4	[PD1-091] 15.10, Para 83-86, Table 4-11.	For the ORBA, the Applicant has presented an alone assessment for guillemot at Flamborough and Fley Coast (FFC) using Natural England's approach to apportioning using model-based population estimates only. This is in contradiction to the Applicant's response [PD1-071] to comment F14 within our Relevant Reps, where the Applicant states: " <i>The Applicant utilised both design-based and model-based density estimates for guillemot to inform the site refinement work, as advised by Natural England, however the Applicant retained the use of design-based density estimates for the primary assessments.</i> "	Natural England requests that the Applicant presents an assessment for guillemot using both design-based and model-based estimates and presents displacement matrices for both.
F1.5	[PD1-091] 15.10, [PD1-092] 15.10A Apportioning	In our Relevant Representations [RR-045], Natural England set out our preferred approach to apportioning for guillemot, including the addition of a bespoke post-breeding season (August – September) and the recommended apportioning rate for this bioseason (68.5%). The Applicant has undertaken an assessment using Natural England's approach (albeit for model-based estimates only, see comment 4). The Applicant however does not state anywhere within the updated ORBA documentation what the apportioning rate is for guillemot during the post-breeding period as advised by Natural England.	An updated assessment should clearly set out what Natural England's preferred approach to guillemot apportioning is, including the apportioning rate that has been used during the bespoke post-breeding period.
F1.6	[PD1-091] 15.10, [PD1-092] 15.10A Apportioning	At Relevant Representations [RR-045], Natural England advised a bespoke apportioning rate for razorbill during the post-breeding bioseason (August – October) of 70.6% rather than the rate presented in Furness 2015 of 3.4%. The Applicant makes no reference to this recommended rate within their ORBA documentation, and it appears it is not included in the "Natural England approach" presented. Table 4-13 in document 15.10, [PD1-091] only shows a separate 'Natural England approach' line for the 'breeding' bioseason (accounting for differences in the Applicant's and Natural England's adult apportioning rates) and the 'annual total', but not for the 'post-breeding' bioseason.	An updated assessment should clearly set out what Natural England's preferred approach to razorbill apportioning is, including the apportioning rate advised for the post-breeding period and ensure this is reflected in the impact values calculated using the Natural England approach for razorbill.

NE Ref	Section	Key Concern and/or Update.	Natural England's Advice to Resolve Issue
F1.7	[PD1-081] 15.9, [PD1-086] 15.9D ORBA Environmental Report	The Applicant has clarified that both design- and model-based population estimates were produced for guillemot only, and that the modelled population estimates were used to inform the area for the ORBA. The full methods employed have been presented within 15.9G ORBA MRSea Modelling for Offshore Ornithology [PD1-089].	Subject to clarification from the ExA regarding the status of the ORBA within the Examination, Natural England will provide comments on this at Deadline 2.
F1.8	[PD1-091] 15.10 ORBA HRA	In our Relevant Representations [RR-045], Natural England advised the potential for Likely Significant Effect (LSE) to red-throated diver (RTD) and common scoter in the Greater Wash SPA as a result of vessel movements during the O&M phase and that these impacts should be considered. The Applicant had not identified LSE during the O&M phase, stating that impacts within the ECC will be lower in the O&M phase compared to the Construction/Decommissioning phase. The Applicant has not added this consideration into the new ORBA documentation.	Natural England's advice remains unchanged and continues to advise that full consideration should be given to the potential for displacement and disturbance to red-throated diver within the Greater Wash SPA during the O&M phase as a result of vessel movements.
F1.9	[PD1-081] 15.9 ORBA Environmental Report, [PD1-091] 15.10 ORBA HRA	<p>The Applicant has included in the ORBA documentation further detail on their assessment of LSE of the Offshore Reactive Compensation Platforms (ORCPs) on RTD and common scoter, specifically the potential impact of the ORCPs presence within the Greater Wash SPA for the lifetime of the project. This considers current evidence for the extent of displacement of RTD by offshore structures such as military forts, lighthouses and offshore structures associated with Sizewell Nuclear Power Station within the Outer Thames Estuary (OTE).</p> <p>Natural England agrees that there is a lack of peer reviewed studies looking at the potential for anthropogenic static structures to displace divers and sea ducks. However, Natural England are not in agreement that a direct comparison can be made between the proposed ORCPs</p>	Natural England advises that an assessment of the potential for the ORCP's to cause displacement to RTD should consider both the estimated mortality, and the area (km ²) and the proportion of the SPA where RTDs have the potential to be displaced from by such a structure. Previous HRAs for artificial nesting structures (ANS) have assumed a 2km displacement buffer around the ANS, similar to what would be predicted for vessels. Natural England advises that, due to the ORCPs

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		<p>and the anthropogenic structures within the Applicant's assessment, the majority of which are substantially smaller in height than the ORCPs, for which APP-048 outlines as having a maximum width of 90m and a maximum height of 90m each.</p> <p>Natural England agrees that the data presented within Lawson <i>et al</i> 2016, and more recent surveys of the Greater Wash SPA (see below), suggests that the proposed ORCP area overlaps with areas of low density of common scoter. Natural England does not agree, however, with the Applicant's statement that "<i>Figure 4-1 shows the distribution of red-throated diver within the Greater Wash SPA and the low level of overlap with the proposed ORCP area.</i>" The proposed ORCP area overlaps with areas of medium relative density for RTD as per Lawson <i>et al</i> 2016.</p>	<p>being substantially larger in size than an ANS and the majority of the structures assessed within 15.10, the displacement distance is likely to be between 2km (as per a vessel/ANS) and 10km (as per a turbine). We therefore recommend that an updated impact assessment presents displacement assessments for both these values so that a plausible range of impacts can be considered. At this stage, Natural England continue to advise that the Applicant considers alternative locations for the ORCP outside the SPA to avoid impacts to the RTD feature.</p>
F1.10	[PD1-081] 15.9 ORBA Environmental Report, [PD1-087] 15.9E Collision Risk Modelling	The collision risk appendix ([PD1-087]) presents wind turbine parameters and summary of CRM results for both a 'low' and 'high' scenario, but does not provide any context as to why multiple scenarios are being considered. It is also not clear which scenario has been carried through to the assessment presented within the Environmental Report (which does not present multiple scenarios).	Please could the Applicant clarify in an updated assessment why multiple scenarios are being considered, how these differ from the scenarios presented in the original Environmental Statement, and which scenario has been carried through to the latest assessment.
F1.11	[AS1-064] 6.3.12.1, Chapter 12 Appendix 1 Intertidal and	As requested by Natural England in our Relevant Representations [RR-045], the Applicant provided two reports for the kittiwake offshore platform census surveys conducted in 2022 and 2023 (within AS1-064), within their response to the Section 51 advice.	Natural England requests that the Applicant clearly presents how the data from the offshore platform census surveys has been used to calculate a count of 1,672 as per Table 12 in Annex

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	Offshore Ornithology Technical Baseline [PD1-092] 15.10A, ORBA HRA Apportioning Section 6.3	These reports provide an overview of the survey details and methods, in addition to the number of active and trace nests recorded on each platform; this is also summarised in PD1-092 Section 6.3. It is not clear, however, exactly how the data from these surveys has been used to inform the Applicant's approach to apportioning of kittiwakes to offshore colonies, specifically how the rate of 61.3% apportioning to Flamborough & Filey Coast (FFC) SPA has been calculated.	A, and how a summed proportional weight of the four FFC SPA colonies of 0.64 has resulted in an apportioning rate of 0.613 or 61.3% to the SPA.
F1.12	[PD1-081] 15.9 ORBA Environmental Report, Table 4.21	The Applicant has clarified that the full breeding season for gannet (March to September) has been used throughout the assessment and this is reflected within both PD1-081 and PD1-092. The Applicant also states that they have used the full breeding season (April to August) for Sandwich tern, and this is shown within Table 2.1 in document PD1-092. However, the Environmental Report [PD1-081] shows the breeding season as May to August.	Please could the Applicant correct the information within Table 4.21 and/or the assessment as appropriate.
F1.13	[PD1-081] 15.9 ORBA Environmental Report & [PD1-087] 15.9E Collision Risk Modelling	The Applicant has rerun collision risk modelling for the area excluding the ORBA and presented updated collision risk estimates for gannet, kittiwake, sandwich tern, herring gull, lesser black-backed gull and great blacked gull. This is using the nocturnal activity factors (NAFs) as set out in Garthe and Hüppop (2004) as recommended by Natural England.	Natural England welcomes the Applicant's use of these parameters.
F1.14	[PD1-081] 15.9 ORBA Environmental Report	Updated collision risk modelling has not been presented for common tern and little gull, either in respect of the introduction of the ORBA, or in response to Natural England's comments at relevant representations [RR-045] regarding having used the incorrect NAF. Furthermore,	Natural England advises that migratory collision risk modelling is rerun for the revised array area in light of the introduction of the ORBA.

NE Ref	Section	Key Concern and/or Update.	Natural England's Advice to Resolve Issue
		migratory collision risk modelling has not been rerun for the ORBA and Natural England therefore do not have updated collision risk impacts for migratory species, including little gull and common tern.	
F1.15	[PD1-071] 15.3	The Applicant has clarified the reason for not including a burn in within the Population Viability Analysis (PVA) for LBBG; that there were no material differences to outputs with and without.	Natural England maintain that it would be useful for the Applicant to present the full results with burn in, as per the advised approach to PVA, even if they are not considered by the Applicant to be materially different.
F1.16	[PD1-071] 15.3, [PD1-092] 15.10A, paragraph 60	Natural England welcomes the Applicant's change to paragraph 60 in the ORBA HRA Appendix A apportioning [PD1-092], clarifying that the modelled distributions of guillemot presented in Cleasby <i>et al</i> , 2020 do not include tracking data from FFC SPA. Natural England wish to reiterate our position that April should be considered as part of the breeding season for guillemot as defined by Furness 2015, and that this advice is based on the best available evidence. There is currently no clear evidence to support the idea that birds are substantially less bound to the nest site in April than at other times during the breeding season. We note that Dunn <i>et al</i> 2020 is referenced several times by the Applicant as evidence that colony attendance is low in April, but this reference also states that by early April (at the Isle of May) " <i>an increasing proportion of sites were occupied</i> ".	As previously stated, a prolonged debate about our position and the evidence that underpins it has the potential to distract the Examination from focussing on resolving the outstanding issues with the Applicant's assessment. We consider that it would be more beneficial to focus effort on addressing them.
F1.17	[PD1-071] 15.3 Applicant's response to RR	The Applicant's view is that where impacts are considered as very minor, in terms of increase to baseline mortality, the Applicant believes they do not need to be carried through to a cumulative/in-combination assessment.	It remains Natural England's position that where there is a prospect of a contribution to an in-combination adverse effects, small impacts need to be carried through to an in-combination assessment.

NE Ref	Section	Key Concern and/or Update.	Natural England's Advice to Resolve Issue
F1.18	[PD1-071] 15.3 Applicant's response to RR	The Applicant has clarified that they have no intention of updating their cumulative and in-combination assessments as more up to date values from other live projects will become available during examination.	For the ExA to provide up-to-date recommendations to the Secretary of State regarding the cumulative and in-combination impacts of the proposal, we consider that these assessments should be updated to reflect the latest impact estimates from the Five Estuaries, Dogger Bank South, and North Falls projects. In order to minimise the number of iterations of these assessments, we recommend the Applicant collaborate with the above developers to agree how updated impact values (based on Statutory Nature Conservation Bodies (SNCB) advice) can be efficiently incorporated into each other's assessments as the Examinations of all four projects progress.