



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES
2010

Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms

Appendix C3 to the Natural England Deadline 5 Submission

**Natural England's Further Response to Offshore Ornithology Compensation
[REP3-022, REP3-023, REP3-088, REP3-092 and REP3-096]**

For:

The construction and operation of the Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms located approximately 16km and 27km respectively from the Norfolk Coast in the Southern North Sea.

Planning Inspectorate Reference: EN010109

13th June 2023

Appendix C3 - Natural England's Further Response to Offshore Ornithology Compensation [REP3-022, REP3-023, REP3-088, REP3-092 and REP3-096]

1. Introduction

Please find Table 1, Natural England's Comments on Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP) Offshore Ornithology Compensation matters. In forming our advice, the following documents have been considered:

- Sandwich Tern – Quantification of Productivity Benefits Technical Note (Revision B) [REP3-092]
- Appendix 4 – Gannet, Guillemot and Razorbill Compensation Document (Revision B) [REP3-022]
- Annex 4 – Auk Bycatch Reduction Feasibility Statement [REP3-023]
- 13.7.1 Habitats Regulations Assessment Derogation and Compensatory Measures Update (Revision B) [REP3-096]
- Gateshead Kittiwake Tower Modification – Quantification of Productivity Benefits Technical Note (Revision B) [REP3-088]

Please note that Natural England has no further comments to the Gateshead Kittiwake Tower Modification – Quantification of Productivity Benefits Technical Note (Revision B) [REP3-088]. The updates to this document have largely satisfied Natural England's requests for additional information on kittiwake breeding performance on the Tyne and its implications for the proposed compensation.

Table 1. Natural England's Advice on: Offshore Ornithology Compensation [REP3-022, REP3-023, REP3-088, REP3-092 and REP3-096]

Point Ref	Location within Submitted Document			Natural England's Response	
	Section	Page	Para, Table or Fig Ref	Key Concern	Natural England's Advice to Resolve Issue
Document Reviewed - EN010109-001508-13.7.1 Habitats Regulations Assessment Derogation and Compensatory Measures Update (Revision B) (Tracked) [REP3-096]					
1	4.2.1			<p><u>Improved breeding success at SPA sites other than NNC (the Farne Islands SPA)</u></p> <ul style="list-style-type: none"> • Whilst the provision of 350 extra nest shelters, 400 nest boxes, 6 cameras and potentially bamboo canes are not in the draft NNR management plan, the key point here is that Natural England (and National Trust) do not see any meaningful additional benefits would arise from their use. As noted in our Relevant Representations [RR-063], <i>'Natural England remain concerned that the measures proposed are not truly additional, and in any event are likely to provide only minor benefits compared to an ongoing programme of vegetation and large gull management.'</i> (our emphasis). • We highlight again that there is no evidence to suggest that sandwich tern will use nest boxes, as opposed to nest shelters, and that the colony managers do not support the use of bamboo canes on the Farne Islands. • Natural England note and support National Trust's observation in their letter dated 20th April 2023 that <i>'Available and suitable space for interventions on the Farne Islands is limited, as most of the area is keenly contested by breeding seabirds. The Sandwich tern nesting area is also very fragile due to puffin</i> 	Natural England re-affirms its position that the proposed measures at Farne Islands SPA will not provide meaningful compensatory benefits, even as a supporting or secondary measure.

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				<p><i>burrows.</i> Even were the measure to have meaningful benefits, which is doubtful, the proposed level of provision seems unachievable without potentially negative consequences e.g. loss of sandwich tern nesting space, including those areas envisaged to be restored by the management plan, damage to puffin nesting habitat.</p> <ul style="list-style-type: none"> • Whilst the general commitment to assisting the National Trust in restoring the sandwich tern is welcomed, there is no detail provided on what this might entail. Therefore, we consider that the ExA should place limited weight on this. 	
2	4.2.2			<p><u>Without Prejudice Bycatch Reduction Proposal for Auks</u></p> <ul style="list-style-type: none"> • Please see our detailed comments on [REP3-022] 	n/a
3	4.3.1			<p><u>Sandwich Tern Nesting Habitat Improvements and Restoration of Lost Breeding Range at Scar Point, Loch Ryan – Inland Pool</u></p> <ul style="list-style-type: none"> • Whilst we remain supportive in-principle of the proposed intervention, Natural England is concerned by the level of progress made regarding key issues at this stage in the Examination, in particular the lack of a confirmed location and any landowner agreement. • We also note the delay in consulting on the concept designs (now planned for the end Q2 i.e. in the final stages of the Examination) and the statement that the engineering design will not be confirmed until Q3, which is likely to be after the Examination closes. 	We recommend the Applicant bring forward further detail regarding the tenure, location, design and proposed operation of the inland pool for stakeholder comment as a matter of urgency.

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				<ul style="list-style-type: none"> This means that critical details regarding the tenure, location, design and operation of the proposed habitat creation are lacking at this stage. In this context, unless further information is promptly provided, Natural England foresees advising the ExA at the end of the Examination that there is insufficient confidence that compensatory measures can be secured for Sandwich tern. 	
4	4.3.2			<p><u>Kittiwake Nest Site Improvements to Enhance Breeding Success – Gateshead</u></p> <ul style="list-style-type: none"> We welcome the confirmation of Gateshead Council's support for the proposed compensatory measures as both the landowner of the Gateshead Saltmeadows site and the local planning authority. This does increase confidence that the measures can be secured. We note that concept designs are scheduled to be consulted on in late Q2. As with the sandwich tern proposals at Loch Ryan above, we have concerns that this material will only be available towards the final stages of the Examination. Plate 1 presents two initial design options for augmenting the existing Gateshead Saltmeadows site. We appreciate that these are illustrative, however we do have some concerns that the 'W' design could involve nesting kittiwakes facing each other, which has the potential to increase the level of aggression and territorial encounters, which could affect the breeding success of the existing kittiwakes as well as reducing occupancy/productivity of new recruits. It may well be that alternative designs that extend the existing north-west and 	We recommend that the Applicant submit the concept designs into the Examination as soon as they are available.

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				north-east faces, or a less acute angle for the proposed 'arms' such as the other initial option shown, avoid or reduce this risk. Natural England will advise further on this matter once the concept designs are submitted.	
Document Reviewed: Sandwich Tern – Quantification of Productivity Benefits Technical Note (Revision B) [REP3-092]					
5			Table 1	Natural England advise that we do not generally consider it useful to 'comment on comments', however, in this case the Applicant's responses to our representations include some new information. therefore, we have provided advice on some key items.	n/a
6			Table 1 ID 4	<p>Natural England thanks the applicant for providing more detail in regards the productivity figure of 0.8 per chick per pair they have selected as appropriate (for sandwich terns not subject to predation or disturbance). This is a key metric, and while Natural England recognise that there will need to be assumptions made in regarding the appropriate range of productivity rates to model, it is important to provide this justification in order for there to be any confidence placed in the quantification of productivity benefits. Because of this, we suggest this response should be incorporated into the main body of the report rather than just the consultation table.</p> <p>The productivity rate of 0.8 chicks per pair seems to rely heavily on Short 2020 reporting on the Sands of Forvie, however the Applicant's response does not clarify if this is based on empirical data from Forvie or simply used to inform a rate. Natural England requests that this report is submitted into the examination. We further note that it may be appropriate to reference Sandwich Tern productivity rates at Cemlyn</p>	<p>Incorporate justification for the productivity figure into the main report.</p> <p>Submit Short 2020 into the Examination.</p>

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				Lagoon, Wales, as this colony is geographically closer and in an 'ecologically coherent area' based on trends in abundance and productivity, (as described by Cook et al 2011). We further note that the applicant is assuming the lagoon will be mammalian predator and human disturbance free, which while being a key aim of the proposal, cannot be fully relied upon, particularly at this stage without detailed site and management plans for the Loch Ryan site.	
7			ID6	<p>Natural England notes that no additional stress testing has been provided to better explore whether the colony size is sufficient -or- how long the measure should be in place to account for mortality debt. Natural England does not agree that the information has been provided to establish that:</p> <p><i>Although the stress-test undertaken is not explicit in accounting for the possibility of a mortality debt accruing, the available evidence suggests that such a situation is unlikely to arise</i></p> <p>It is reassuring to know that if a mortality debt were to arise then: <i>it could, if required, be accounted for by extending the duration over which active management was undertaken at the Loch Ryan site (i.e. potentially beyond the Projects' operational period) to ensure that sufficient levels of breeding success are maintained over a sufficient number of years to balance the mortality predicted to have occurred during the Projects' operational periods.</i></p> <p>It will be essential to ensure that the CIMP reflects this.</p>	<p>Ensure the CIMP commits to extending the duration of active management should that prove necessary.</p> <p>Ensure the CIMP includes a robust monitoring regime sufficient to trigger adaptive management should the colony under-perform with respect to the 95% CI level requirements.</p>

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				<p>Furthermore, Natural England does not accept that: <i>'scenarios for reasonable worse-case in terms of initial colony establishment size, colony growth rate, colony size and breeding productivity (e.g. which could arise due to climate change effects leading to higher frequency of colony inundation events) are essentially already encompassed by the stress-test exercise that has been undertaken'</i></p> <p>This is because the stress testing uses a static population and a fixed productivity rate – the worst case of which (50 pairs and 0.6 productivity) is only predicted to produce half the number of adults (6) as required at the 95% CI level. This underlines the need for a strong monitoring regime and a clear commitment to ensure that active management of the site persists until the compensation requirements are met.</p>	
8			13 and Table 2	<p>Natural England notes the assumption that all birds from Loch Ryan will recruit into the SPA network (as nearly all Sandwich terns in the UK breed at SPAs) and hence that all chicks produced at Loch Ryan can be considered part of the compensation.</p> <p>The compensatory benefits of Loch Ryan relate to both the provision of recruits into the National Site Network (NSN) and the restoration of lost range for Sandwich tern at a site which would be incorporated into the NSN in due course. On that basis and acknowledging that there should also be additional supporting measures within the package for</p>	Ensure plans provide sufficient high quality habitat that allows space for the calculated number of pairs and potential expansion beyond that point.

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				<p>Sandwich tern compensation (though see point above re: Farne Islands), this is an acceptable working assumption.</p> <p>However, there is some uncertainty around the colonisation timing, rate and number of birds that will be attracted, as well as the likely destinations of Sandwich tern produced by the colony (noting that the colony will need its own recruits to sustain itself). This puts an increased emphasis on the need to provide high-quality habitat for Sandwich tern that comfortably provides sufficient space for the calculated number of nesting pairs as well as additional space for expansion beyond that point.</p>	Progress alternative supporting proposals.
Document Reviewed: Appendix 4 - Gannet, Guillemot and Razorbill Compensation Document (Revision B) [REP3-022]					
9	6.2			<p>The Applicant proposes using 95% upper Confidence Interval (CI) of 50% and 1% displacement to base the compensatory requirements on (6 guillemot and 3 razorbill adult mortalities per annum). As noted throughout the Examination, Natural England takes a range-based approach to displacement effects and in any event does not consider the available evidence supports the use of 50% displacement and 1% mortality. Recognising the need to establish a specific value to measure the performance of the compensatory measures against, we advise that the compensatory requirements should reflect the 70% displacement and 2% mortality 95% upper CI, which would be 16 guillemot and 7 razorbill adult mortalities.</p>	<p>Establish compensatory requirements that reflect the 95% CI for 70% displacement and 2% mortality, and also the need to maintain the coherence of the NSN for razorbill and guillemot rather than the biogeographic population in general.</p>

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				The calculations of the compensatory requirements should also reflect the need to 'save' adult auks that form part of the NSN network, rather than simply adult auks from the biogeographic population in general. The Applicant has proposed this for the kittiwake and Sandwich tern compensation, and we consider that they should take this approach for auks as well.	
10	6.2.1. and 6.2.2			Note comments from Natural England provided at deadline 3 to update guillemot and razorbill in-combination figures with H4 estimates that reflect the Natural England (standard and bespoke) methodology.	Provide the requested updates at Deadline 5.
11	9.2		206	Natural England note that bycatch reduction is now being focused on the SW England. Whilst it is broadly agreed that auk bycatch occurs at more substantial levels in this area, it is more remote from the impacted colony, and therefore there is likely to be a lower level of connectivity.	Please see comments above and below regarding the need to protect the coherence of the NSN rather than the biogeographic population in general.
12			212	Natural England note the commitment (if the Secretary of State deems compensation necessary) to implement baseline monitoring of bycatch of guillemot and razorbill in the relevant gill net fishery and note the suggestion to collaborate and/or align with existing trials underway for Hornsea 4. Both these elements are appropriate, though at this stage do not really address Natural England's concerns regarding the likely effectiveness of the measure.	Ensure these commitments are reflected in the IMP for these species, noting that this does not in itself address Natural England's concerns regarding whether Looming-Eye Buoys

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					(LEB) will provide effective compensation.
13	9.23		217 - 220 table 9.1	<p>Natural England considers that the justification provided here does not address our concerns regarding the effectiveness of LEB. We do recognise that SEP and DEP are likely to have rather smaller compensatory requirements than Hornsea 4, and therefore the level of risk is reduced, however, the compensatory requirements of SEP and DEP need to be appraised as <u>in addition</u> to those of Hornsea 4. However, we do welcome the <u>proposed</u> collection of data regarding the effectiveness of LEB and the level of bycatch on an ongoing basis. Natural England consider our comments provided in our relevant representations [RR-063] are still wholly pertinent:</p> <p><i>'Natural England currently consider the Looming Eye Buoys (LEB) to remain an unproven technology with respect to reducing bycatch of auks and has significant reservations regarding the conclusions drawn on the trial carried out by Hornsea 4 OWF. Please see Natural England's advice during the Hornsea Project Four Examination available at: EN010098-001970-Natural England - Comments on any submissions received at Deadline 6 1.pdf (planninginspectorate.gov.uk)'</i></p> <p>In particular, please note the comments as regards the data presented from the Orsted by-catch trials in the above referenced Natural England submission on Hornsea 4:</p>	<p>Ensure the ongoing collection of data regarding LEB effectiveness and bycatch levels are reflected in the IMP, noting that this does not in itself address NE's concerns regarding whether LEB will provide effective compensation.</p> <p>Ensure the data collection plan within the IMP takes full account of Natural England and RSPB's methodological/analytical concerns regarding the Hornsea 4 LEB trial.</p>

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				<p><i>'The Applicant has calculated a relative 25% reduction in bycatch of guillemot by comparison of the percentage of LEB treated nets (42.9%) versus control nets (57.1%) that caught one or more guillemot. Natural England consider this calculation to be methodologically inappropriate and of no value in assessing the efficacy of the LEB.</i></p> <p>And</p> <p><i>'Natural England maintain that it is not possible to assess the potential scale of the measure without a proven implementation method with fully quantified and independently ratified success rates, and a quantified assessment of actual bycatch rates at the target fishery with consideration given to variation across vessels and other co-variates (e.g., gear specifics, environmental conditions).</i></p> <p>And further noting that the conclusion provided by Natural England in regards the by-catch reduction compensation proposal and associated trials for Hornsea 4 is also valid for SEP and DEP:</p> <p><i>'In summary, we do not consider the LEB trial and subsequent data analysis to be sufficiently transparent or robust at the current time to draw any conclusion on the technologies ability to significantly reduce bycatch. A multi-year trial and subsequent appropriate statistical analysis of the data will be required. Further, Natural England will need to be able to undertake a sufficient audit of that data and analysis or be suitably assured that an independent third party has reviewed and approved the findings of the trial. Noting that several years are</i></p>	

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				<p><i>available between consent and operation of the windfarm, Natural England do remain fully supportive of the ongoing LEB trial and hopeful that it will ultimately be capable of delivering quantifiable reductions in bycatch of auks and other marine birds. However, auk bycatch reduction is not currently demonstrated as being a viable compensation measure.'</i></p> <p>We would also like to draw attention to the comments made by RSPB (in response to the Hornsea 4 by-catch trials), found here:</p> <p>EN010098-001917-Royal Society for the Protection of Birds - Comments on any other submissions received at Deadline 5a 2.pdf (planninginspectorate.gov.uk)</p>	
14			222	<p>Natural England note that in addition to the use of AWD the proposal is to use high-visibility corline and train fishers to remove entangled birds alive. Natural England broadly supports the inclusion of these measures in the compensation proposals, although highlights the comments provided in our relevant representations (refer to Detailed comments 33, 34, 35 and 37). These do not overcome the uncertainty regarding the effectiveness of LEB, which is currently the primary compensation mechanism.</p>	<p>Ensure these commitments are reflected in the IMP for these species, noting that this does not in itself address NE's concerns regarding whether LEB will provide effective compensation.</p>
15	9.2.5		223 - 226	<p>Natural England note that the compensation levels (whether at 50% and 1% or 70% and 2% or some other figure) are expressed in terms of FFC SPA adults and that a correction has been applied to account</p>	<p>Establish compensatory requirements that</p>

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				for non-adults caught as by-catch. However, there is also a requirement to identify the proportion of guillemot and razorbill that are likely to be part of the UK SPA network. This is likely to alter throughout the year, and Furness (2015) should give an indication of the proportion of non-UK SPA birds present in different sea areas per season.	reflect the need to maintain the coherence of the NSN for razorbill rather than the biogeographic population in general.
16			224	It is unclear whether the questionnaires targeted the SW fishers.	Provide clarification.
17			Table 9.3	Natural England note that the CIMP for guillemot and razorbill is not planned to be submitted until post consent in 2025. We highlight that the baseline monitoring is planned to commence before then, which would mean it begins prior to consultation on the CIMP. It is important that agreement is achieved regarding the baseline monitoring as establishing a robust baseline is critical to evaluating the success of the measures.	We advise that the CIMP should be submitted before baseline monitoring commences.
Document Reviewed: Annex 4 - Auk Bycatch Reduction Feasibility Statement [REP3-023]					
18	General comment			Natural England has reviewed this document and note that no substantive new material to address the concerns raised by Natural England in our relevant representations has been provided, and therefore our reservations regarding the likely effectiveness of the proposed compensatory measures remain.	n/a
19	2.1			We note that Cleasby <i>et al</i> (2022) found that the southwest (Cornwall) was a potential hotspot for shag (not guillemot and razorbill).	Amend report to accurately reflect

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					Cleasby <i>et al</i> conclusions.

References

Cook ASCP, Parsons M, Mitchell I, Robinson RA (2011) Reconciling policy with ecological requirements in biodiversity monitoring. *Mar Ecol Prog Ser* 434:267-277. [REDACTED]