



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

2010

FIVE ESTUARIES OFFSHORE WIND FARM

**Natural England's comments on the Examining Authority's Written Questions (ExQ1)
[PD-001]**

For:

The construction and operation of Five Estuaries Offshore Wind Farm located approximately
57 km from the Essex Coast in the Southern North Sea.

Planning Inspectorate Reference EN010115

12 November 2024

	Question to:	Question	Natural England Response
Marine Ecology (ME)			
General Questions			
Assessment Methodologies			
ME. 1.01	Applicant, Natural England, MMO and RSPB	<p>IP Methodological Concerns</p> <p>A number of methodological concerns have been raised by NE [RR-081], the Maritime Management Organisation (MMO) [RR-070] and the RSPB [RR-094]. An update should be provided explaining how the Applicant is addressing the IPs' methodological concerns.</p> <p>The ExA notes the documents submitted by the Applicant, together with updates to the Environmental Statement, pursuant to addressing the methodological concerns of Interested Parties. This includes a Herring Seasonal Restriction Note [REP1-024], an Apportioning Note [REP1-020], Guillemot and Razorbill Survey Reports [REP1-054], Population</p>	<p>Fish Ecology (Herring) Methodological Concerns</p> <p>Natural England will respond on fish ecology (herring) methodological concerns at Deadline 4.</p> <p>Marine Mammal Methodological Concerns</p> <p>Natural England will respond on marine mammal methodological concerns at Deadline 4.</p> <p>Ornithology Methodological Concerns</p> <p><u>Overview</u></p> <p>Referring to the Apportioning note [REP1-020], Population Viability Analysis [REP1-022], and Guillemot and Razorbill Survey Report [REP1-054], Natural England highlight the key areas of disagreement concerning:</p> <p>(i) the apportioning of adult age lesser black-backed gull (LBBG) to the Alde-Ore Estuary SPA, in particular the use of a stable age structure based on generic data and sabbaticals to do so; and</p> <p>(ii) the construct of the population viability analyses (PVAs) run without a 'burn in' period.</p> <p>Both actions have the effect of potentially underestimating impacts over the lifetime of the project for the reasons outlined in more detail below. These concerns can be addressed if the Applicant completes their assessment using Natural England's advised approach and then applying the findings to the PVAs with an appropriate 'burn in' period to determine the impacts over the lifetime of the project. The mortalities estimates derived using the Natural</p>

		<p>Viability Analysis [REP1-022] and Marine Mammal Modelling [REP1-056].</p> <p>Can the Parties identify areas of outstanding disagreement with regard to assessment methodologies, as well as provide an update in relation to how such concerns are being addressed.</p>	<p>England approach should also be used to calculate the compensation quanta for all species where Adverse Effect on Site Integrity (AEoSI) cannot be ruled out and form the basis of each derogation case.</p> <p>In addition, whilst we welcome the progress made by the Applicant in progressing the evidence base for their proposed guillemot and razorbill compensation, we highlight that some key uncertainties remain and will require addressing in due course.</p> <p><u>Apportioning of adult age class LBBG to the breeding population at Alde-Ore Estuary SPA</u></p> <p>With reference to Apportioning note [REP1-020], section 3.1.2 and PVA [REP1-022], section 3.2.1., Natural England notes that the stable age structure used in the assessment is derived from Furness (2015) and the predicted numbers of adults and juveniles present in the biogeographic region (the UK North Sea and Channel) during the non-breeding season only. Furness (2015) does not present a stable age structure for the breeding season.</p> <p>Natural England consider that apportioning according to the stable age structure ratio risks significantly underestimating impacts on adult breeding birds. This is because the UK North Sea and Channel area is vast and extends well beyond the foraging range of the LBBG that nest in the Alde-Ore SPA during the breeding season. The ratio of adults to immature birds over such a large area are likely to be highly spatially variable, and there is no basis for assumption that the ratio is applicable at a small project study area. In fact, it is noted by Furness (2015) that, <i>“at sea distribution of seabirds differs between age classes, with youngest birds tending to spend their time in the winter quarters even during summer, breeding adults tending to stay closest to their breeding area, and immature birds probably at sea in areas that have good food supplies but are away from large colonies. Therefore, it is not clear that any at sea data on proportions of different age classes would provide a secure test of the estimated proportions based on demographic data.”</i> We note the relative proximity of colonies to the project, which will inevitably lead to a higher proportion of adults present in the breeding season.</p> <p>Furthermore. the stable age structures (Furness, 2015) have been calculated using a simple Leslie matrix model. Survival rates are highly uncertain, and were iteratively adjusted until</p>
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			<p>the model stabilised, i.e. showed zero population growth. The model then assumes consistent productivity and survival rates. Therefore, we consider the model results unvalidated. The demographic data considered is now dated too, e.g. productivity data considered are from the period 1986-2006. The model does not consider current population trends, or indeed contemporary population count data.</p> <p><u>Application of a sabbatical rate to discount the proportion of adults not nesting each year</u></p> <p>With reference to Apportioning note [REP1-020] section 3.1.2, PVA [REP1-022] section 3.2.1., Natural England does not consider the current evidence base sufficient to recommend sabbatical rates of >0 for any species. We therefore recommend that no apportioning is applied to account for sabbatical rates.</p> <p>Natural England acknowledge a proportion of the LBBG breeding population do not nest every year; however, it remains unclear what proportion of these birds attend the colonies but also how these birds behave offshore if they do, and where the birds go to if they do not. There is good evidence from a variety of seabird species including the larger gulls that a proportion of breeding adults take ‘sabbaticals’ where they skip a nesting attempt but continue to breed at the same colony in subsequent years (Horswill and Robinson 2015). However, there is not good evidence available about how these birds behave. with some indication that these birds may return to their nesting colonies or breeding range during sabbatical years (Calladine and Harris 1997, O’Connell <i>et al.</i> 1997), and show similar foraging patterns (Kazama <i>et al.</i> 2013). In which case they would remain at risk. Indeed, under this scenario, those birds would remain part of the breeding population. Therefore, Natural England believes it is appropriately precautionary to not disregard these birds from the assessment until better evidence suggests otherwise.</p> <p><u>Omission of a ‘burn in’ period for PVA</u></p> <p>With reference to PVA [REP1-022] section 2.2.5, PVA can be used to assess impacts on seabird population sizes and growth rates over the lifetime of a project. As part of Natural</p>
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			<p>particular plausible sites have been identified where mitigation of human induced disturbance could benefit local nesting populations of guillemot and razorbill, and the benefits could be measured through diligent on-shore monitoring.</p> <p>Nevertheless, some key concerns remain and still require addressing [PD2-006]. Notably, the scale of compensation has yet to be agreed and will need to be sought once the PVAs have been undertaken following Natural England guidelines (see note above regarding our comments on the PVAs). In addition, stakeholder participation has not been secured yet and will be essential. Further research is required as well to determine disturbance distance thresholds and the safe 'set back' distances to advocate.</p> <p>The proposed timetable also needs to be agreed so that management can be in place 3-4 years in advance of operations. Two years of surveying will be necessary to establish baselines and verify likely safe 'set-back' distances. An adaptive management plan will be needed too should measures not yield the predicted outcomes and alternative action becomes necessary.</p>
Designated Sites			
ME. 1.14	Natural England	<p>New Question Designated Sites</p> <p>Table 5.1 within NE's Cover Letter to its Relevant Representations [PD2-002] identifies designated sites for which NE is not content that adverse effects on site integrity (as a result</p>	<p>Natural England is content that sufficient information has been provided within the applicant's RIAA to support a conclusion of no AEol for those sites not listed in Table 5.1 within Natural England's cover letter [PD2-002].</p>

		<p>of the Proposed Development alone or in combination) can be excluded beyond reasonable scientific doubt.</p> <p>Are you content with the Applicant's conclusions in its Habitats Regulations Assessment in relation to other designated sites not listed in Table 5.1. If not, explain why that is the case?</p>	
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