



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES  
2010

FIVE ESTUARIES OFFSHORE WIND FARM

**Appendix D8 to Natural England's Deadline 8 Submission**  
**Natural England's Advice on the Applicant's Proposed Seabird Compensation**  
**Measures – Deadline 8**

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

10 March 2025

## **1. General comments**

Natural England's headline advice on calculations for seabird compensation requirements is set out in REP5-095.

To summarise, Natural England currently considers the Hornsea 3 Part 2 ('H3pt2') method to be the most ecologically complete for compensatory measures where it is necessary to calculate the number of breeding pairs required to compensate for a specified mortality impact. It is of note that the H3pt2 method was conceived to inform the design parameters of artificial nesting structures (ANS) for black-legged kittiwake (kittiwake hereafter). The method is also, in principle, suitable for wider application to other measures and for other seabird species. However, in many cases the required demographic information may be limited, or poorly evidenced. Thus, it may not be possible to adequately populate the H3pt2 method.

Following testing of the H3pt2 method for guillemot, razorbill, and lesser black-backed gull, it has become apparent that lower levels of natal dispersal, compounded by older recruitment ages and lower productivity can produce unrealistic and clearly disproportionate requirements for scaling compensatory measures for other seabird species. Furthermore, it is not clear that some of the demographic information is well evidenced, which can introduce significant uncertainty into any calculations reliant on those data.

In such cases and pending further refinement and updates to best practice advice, Natural England consider that given the current absence of a robust alternative option for these species, it is appropriate for the Hornsea 4 ('H4') method to be used, in conjunction with the other steps set out below. Nevertheless, depending on the species, proposed measure(s), and the location(s) they are to be deployed, we advise that the calculations may also need to take account of philopatry.

Natural England generally advises that the scale of implementation of seabird compensatory measures should be sufficient to address the 95% upper confidence limit (UCL) predicted impact value. The mean or central impact value should be used to inform and define success criteria, if appropriate.

The application of a ratio to address the uncertainty of success should continue to be set on a case-by-case basis, considering the level of impact, the feasibility of the measure, and its potential effectiveness. We highlight that the ratio should be applied to scale the implementation of a measure, for example by delivering at multiple distinct sites, each capable of addressing the impact alone.

Natural England highlight that the application of any method to calculate the scale of compensatory measures with respect to the number of breeding pairs required to compensate a specified annual mortality impact remains somewhat contentious. The pressing need for independent expert advice on the topic led to the BTO being contracted by Natural England (on behalf of the Collaboration on Offshore Wind Strategic Compensation) to critically review the available methods and determine the most appropriate for this application, or to identify an alternative method. It is unlikely that the outputs of this project will be finalised in time for proper consideration within this examination. Our case-specific advice on this topic set out below reflects current knowledge and the application of expert judgement to the potential of measures to deliver tangible benefits, but we acknowledge the need for greater clarity of advice and guidance in this challenging area.

## **2. Alde-Ore Estuary Special Protection Area (AOE SPA) Lesser Black-Backed Gull (LBBG)**

2.1 Predicted impacts – the central impact value (CIV) generated when Natural England's parameters are used is 11.31 adults from the SPA per annum, with a 95% upper confidence interval (UCI) value of 51.8 adults. Natural England advises that an adverse effect on the integrity (AEOI) of the SPA cannot be ruled out in combination with other projects.

We are satisfied that the above are appropriate values for the impact assessment and scaling compensatory measures.

2.2 Natural England's general advice on the proposals – Natural England considers that if the Applicant makes good progress with reaching agreements with the relevant landowners and can bring forward measures at both the 'VE2' site on Orfordness and at the Outer Trial Bank, it is likely that appropriate compensatory measures can be secured for the above level of impact. As set out in our Deadline 7 response (Appendix C7 in [REP7-104]), there are ecological uncertainties regarding the success of colonisation at the VE2 site and the current impacts of rat predation and vegetation growth on the Outer Trial Bank. Therefore, and as set out in our Relevant Representations [PD2-006] we consider there to be significant merit in progressing both schemes, as they are in several respects complementary.

Landowner agreements do need to be progressed, however. There are also some as-yet-unresolved aspects of the proposals that will need to be addressed post-consent in the Implementation and Monitoring Plan (IMP), not least the need to revisit measures to mitigate for potential impacts on the features of Orfordness – Shingle Street Special Area of Conservation (SAC) once seasonally appropriate vegetation and invertebrate surveys have been conducted.

2.3 Information provided on compensation requirements – the Applicant has presented compensation quanta based on their preferred impact values (CIV and UCI) as well as Natural England's, based on the H4 calculation method. The Applicant has not formally presented outputs of the H3pt2 method or, as Natural England proposed as an alternative option, H4 with an additional step to take philopatry into account. We note that in the Applicant's response to Natural England's Deadline 4 submissions [REP5-074] they cite a value of 1,270 pairs in the context of their preferred impact value, but no calculations are provided, and we are unable to replicate this value.

2.4 Natural England's advice on compensation requirements - Natural England considers that the target for the compensatory measures should be set with respect to the CIV of 11.31, which yields a target of 42.4 or 53.5 pairs (we are seeking clarification on the correct value). However, it is important that the compensatory proposals should be able to demonstrate that

- i. they could compensate for the UCI value should the impacts of the project be greater than the CIV, and
- ii. the measure is scaled using a ratio to increase confidence that sufficient benefits will still arise, should the measures underperform.

Whilst Natural England continues to consider that philopatry is an important consideration, we also note that the 'VE2' site falls within the NSN, and the value of Outer Trial Bank, outside of the NSN, relates to increasing metapopulation resilience of the biogeographic population within which the NSN sits.

Therefore, were the Applicant to progress both 'VE2' and Outer Trial Bank (the latter potentially in partnership with North Falls), we consider that it is sufficiently precautionary to scale the compensatory measure using the UCI impact value generated using the Nature England advised approach, applying the H4 method to derive the quantum and finally applying a 3:1 ratio to generate the number of pairs the measure should be able to accommodate. Subject to the matters raised above regarding the proposals being resolved, we consider that the two measures combined have the potential to provide compensatory benefits to that level.

### **3. Flamborough & Filey Coast Special Protection Area (FFC SPA) Kittiwake**

3.1 Predicted impacts – the central impact value (CIV) generated when Natural England's parameters are used is 0.82 adult collisions from the FFC SPA per annum. Please note that the Applicant has clarified in [REP7-086] that an appropriate Nocturnal Activity Factor (NAF) has been used to generate this value. Natural England advises that an adverse effect on the integrity (AEIOI) of the SPA cannot be ruled out in-combination, albeit Five Estuaries only makes a small contribution to the in-combination total.

3.2 Natural England's general advice on the proposals – given the modest contribution that the Applicant's proposal makes to the in-combination collision total for FFC SPA kittiwakes, Natural England considers the proposals are proportionate and appropriate. Indeed, Natural England proposed using the 'Dogger Bank South' tower for the compensatory requirements of Rampion 2, Five Estuaries and North Falls OWFs during Discretionary Advice Service meetings with these developers.

3.3 Information provided on compensation requirements – The Applicant has presented compensation quanta based on their preferred impact values (CIV and UCI) as well as Natural England's, based on the H4, Hornsea 3 part 1 (H3Pt1), and H3Pt2 calculation methods. Natural England welcomes the approach of providing the Secretary of State multiple approaches to consider.

3.4 Natural England's advice on compensation requirements – Natural England continues to advise that for kittiwake, compensatory requirements should be scaled with respect to the UCI and the H3Pt2 method. We consider it the most ecologically appropriate approach. Please see REP5-095 for a more detailed rationale. The low rates of philopatry shown by kittiwake are at the heart of the ANS concept, indicating that a substantial proportion of the birds produced by the ANS will recruit elsewhere, including to the NSN.

As noted above, the CIV based on Natural England's preferred parameters is 0.82 adults per annum. The CIV value for 0.82 results in a target of 5.3 pairs. It is also important that the compensatory proposals should be able to demonstrate that

- i. they could compensate for the UCI value should the impacts of the proposal be greater than the CIV, and
- ii. the measure is scaled using a ratio to increase confidence that sufficient benefits will still arise, should the measure underperform.

We highlight that when a UCI value of 2.35 adults, the H3Pt2 calculation and a 3:1 ratio is used, it yields a compensatory requirement of 45.7 pairs. The Applicant has stated that it is seeking to secure a share of approximately 48 nest spaces ([REP5-018]). Notwithstanding the need for the 'Natural England CIV value' being clarified, this indicates that the proposed compensatory measures are appropriately scaled.

#### **4. FFC SPA Guillemot, Farne Islands SPA Guillemot**

**4.1 Predicted impacts** – a mean impact value of 2.28 adults from the FFC SPA per annum and approximately 2 adults from Farne Islands SPA are generated by Natural England's approach to displacement effects, when a 70% displacement rate and a 2% mortality rate are applied for the purposes of scaling compensatory measures. The UCI for FFC SPA is 3.08. Natural England advises that an adverse effect on the integrity (AEOI) on these two SPAs cannot be ruled out in combination, albeit Five Estuaries only makes a small contribution to the in-combination totals.

We are satisfied that the above are appropriate values for the impact assessment and scaling compensatory measures for FFC SPA. The UCI for Farne Islands SPA should be clarified, but given the similarity between the impacts, the FFC SPA value can be used indicatively.

**4.2 Natural England's general advice on the proposals** – given the modest contribution that the Applicant's proposal makes to the in-combination collision total for FFC SPA and Farne Islands SPA guillemot, Natural England considers that, subject to further development and refinement, the proposals are proportionate and appropriate. Indeed, Natural England proposed the option of exploring the potential reduction of recreational disturbance to Southwest auk colonies to multiple developers, including Rampion 2, who presented an in-principle compensation plan for their impacts on both SPAs.

We do recognise that Natural England has returned to the prospect of compensation for the Farne Islands SPA guillemot at a late stage in the Examination.

**4.3 Information provided on compensation requirements** – for FFC SPA, the Applicant has presented compensation quanta based on their preferred impact values (CIV and UCI), and Natural England's, based on the H4 calculation method. The Applicant has informally shared outputs of the H3Pt2 method with us, which we were unable to match, as well as H4 calculations with an additional step to account for philopatry.

The Applicant has not presented any calculations for Farne Islands SPA, but again, we consider the values from FFC SPA can be used indicatively.

**4.4 Natural England's advice on compensation requirements** – Natural England considers that the target for the compensatory measures for FFC SPA should be set with respect to the CIV of 2.28, which yields a target of 9.69 pairs. A slightly smaller target can be expected for Farne Islands SPA.

However, it is important that the compensatory proposals should be able to demonstrate that

- i. they could compensate for the UCI value should the impacts of the proposal be greater than the CIV, and
- ii. the measure is scaled using a ratio to increase confidence that sufficient benefits will still arise, should the measure underperform.

Natural England continues to consider that philopatry is an important consideration. The rates in Horswill & Robinson (2015) for both guillemot and razorbill are based on a small number of studies. Whilst these represent the best available evidence, they should be treated with caution. Furthermore, we highlight the importance of increasing the resilience of the biogeographic breeding population with respect to ensuring NSN coherence. Given the Applicant's modest contribution to the in-combination impacts at both sites, we consider that it is sufficiently precautionary to scale the compensatory measure using the UCI impact value generated using Nature England advice, applying the H4 method to derive the

quantum and finally applying a 3:1 ratio to generate the number of pairs the measure should be able to accommodate. This approach indicates that the proposed measures should be evaluated against the potential need to deliver an additional 39.27 pairs of guillemot for FFC SPA, and a slightly smaller value for Farne Islands SPA.

Natural England considers that management of recreational disturbance in the south-west has the potential to provide this level of benefit, particularly if undertaken as part of a collaborative or strategic initiative. However, to cater for both Farne Islands SPA and FFC SPA, it seems likely that it will be necessary to select further sites from the ten short-listed locations to carry out interventions beyond the three colonies of Lye Rock, Tresungers Point and North Cornwall 2 selected. Nevertheless, we consider that the required level of benefit could be achieved with the inclusion of additional colonies.

## **5. FFC SPA Razorbill**

**5.1 Predicted impacts** – a mean impact value of 0.63 adults from the SPA per annum is generated by Natural England's approach to displacement effects, when a 70% displacement rate and a 2% mortality rate are applied for the purposes of scaling compensatory measures. The UCI is 0.98. Natural England advises that an adverse effect on the integrity (AEOI) of the SPA cannot be ruled out in combination, albeit Five Estuaries only makes a small contribution to the in-combination total.

We are satisfied that the above are appropriate values for the impact assessment and scaling compensatory measures.

**5.2 Natural England's general advice on the proposals** – given the very modest contribution that the Applicant's proposal makes to the in-combination collision total for FFC SPA razorbill, Natural England considers that, subject to further development and refinement, the proposals are proportionate and appropriate. Indeed, Natural England proposed the option of exploring the potential reduction of recreational disturbance to Southwest auk colonies to multiple developers, including Rampion 2, who presented an in-principle compensation plan for their impacts on both SPAs.

**5.3 Information provided on compensation requirements** – the Applicant has presented compensation quanta based on their preferred impact values (CIV and UCI), and Natural England's, based on the H4 calculation method. The Applicant has not formally presented outputs of the H3Pt2 method or, as Natural England proposed as an alternative option, H4 with an additional step to account for philopatry. We note that in the Applicant's response to Natural England's Deadline 4 submissions [REP5-074]) they cite a value of 1,364 pairs in the context of their preferred impact value, though we are unable to replicate this specific value.

**5.4 Natural England's advice on compensation requirements** – Natural England considers that the target for the compensatory measures should be set with respect to the CIV of 0.63, which yields a target of 5.65 pairs. However, it is important that the compensatory proposals should be able to demonstrate that

- i. they could compensate for the UCI value should the impacts of the proposal be greater than the CIV, and
- ii. the measure is scaled using a ratio to increase confidence that sufficient benefits will still arise, should the measure underperform.

Natural England continues to consider that philopatry is an important consideration. The rates in Horswill & Robinson (2015) for both guillemot and razorbill are based on a small

number of studies. Whilst these represent the best available evidence, they should be treated with caution. Furthermore, we highlight the importance of increasing the resilience of the biogeographic breeding population with respect to ensuring NSN coherence. Given the Applicant's modest contribution to the in-combination impacts at both sites, we consider that it is sufficiently precautionary to scale the compensatory measure using the UCI impact value generated using Nature England advice, applying the H4 method to derive the quantum and finally applying a 3:1 ratio to generate the number of pairs the measure should be able to accommodate. This approach indicates that the proposed measures should be evaluated against the potential need to deliver an additional 25.74 pairs of razorbill. Natural England considers that management of recreational disturbance at the three colonies of Lye Rock, Tresungers Point and North Cornwall 2 has the potential to provide this level of benefit, particularly if undertaken as part of a collaborative or strategic initiative.

#### **6. Strategic Approach to Auk compensation by Monitoring and Intervention at SW Colonies**

Having proposed this measure to several projects, alongside highlighting the advantages of working collaboratively to deliver greater benefits, Natural England are pleased to see that the proposed measures considered by Five Estuaries are being considered as part of a wider strategic scheme. Natural England is strongly supportive of this concept. We would welcome more information regarding this proposal, and any ongoing updates regarding progress with stakeholders regarding the short-listed sites that could improve the level of confidence as regards securing the measures.

Natural England advises that if the project or a wider strategic scheme can make good progress with reaching agreements with the relevant landowners, potential partners, and stakeholders, we consider that it is plausible that appropriate compensatory measures can be secured when Natural England's approach to impact assessments is followed.