

Date: 16 May 2023  
Our ref: Case: 13015 Consultation: 432563  
Your ref: EN010109



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## **Website Only**

Dear Sir/Madam

Sheringham Shoal Extension (SEP) and Dudgeon Extension (DEP) Offshore Wind Farms

The following constitutes Natural England's formal statutory response for Examination at Deadline 4.

### **1. Natural England's Deadline 4 Submissions**

Natural England has screened the relevant documents submitted by the Applicant at Deadline 3. As stated in our cover letter submitted at Deadline 3 [REP3-142], due to the short number of working days coupled with resource constraints, there has been insufficient time to thoroughly review the documents submitted Deadline 3. Thereby, the majority of our advice on the new and updated documents will be submitted at the next deadline (D5) on 13 June 2023.

We are continuing to work with the Applicant where possible to progress issues. Please find a summary of Natural England's position regarding these documents in Annex 1 below. With inevitably limited progress at Deadline 4, an updated Risk and Issues Log will next be submitted at Deadline 5.

### **2. Natural England's Response to the Deadline 3 Submission from the Norfolk Coast AONB [REP3-149]**

As the Government's statutory advisor for seascape and landscape, Natural England is concerned

with the response presented by the Norfolk Coast AONB to the Examining Authority's Second Written Questions (WQ2). We will provide a detailed response at Deadline 5.

### **3. Marine Processes Technical Note (Revision B) [REP3-093]**

Natural England welcomes the inclusion of additional bathymetric data and seabed profiles for all six sites within the DOW array area. However, as we previously highlighted [REP2-062], these data still do not cover a long enough time period, post-completion of DOW, to support the conclusion that observed changes are driven by naturally occurring processes alone. We therefore advise continued monitoring, in line with the Applicant's commitment in their In Principle Monitoring Plan (IPMP) [APP-289], to establish a longer time series to inform understanding of trends and patterns of morphological change to validate predictions of sandwave recovery.

As per our advice within Appendix E of our Relevant Representations [RR-063], we continue to advise that there is a requirement to monitor change in sand bank composition topography within the SEP and DEP wind farm site and offshore cable corridor survey areas. This monitoring should be carried out using full seabed coverage swathe-bathymetry to ensure there are no unexpected changes in terms of sandbank elevation, topography, and extent and to processes within coastal designated sites from any sediment transport disruption. We advise this is included within the In Principle Monitoring Plan. We would also wish to see consideration of, and collation with, the Dudgeon Offshore Wind Farm pre- and post-construction geophysical survey monitoring results within the DEP and SEP survey reports.

### **4. Response on Ornithological Matters at Deadline 4.**

We have reviewed the CRM Updates (EIA context) Technical Note (Revision B) and can confirm this adequately addresses our previous comments. The cumulative totals presented can be used by Natural England to formulate our positions on those species subject to collision risk.

Natural England is continuing to engage with the Applicant on outstanding assessment issues. We have set out an appropriate scope of work and provided datasets to facilitate the submission of a Highly Pathogenic Avian Influenza (HPAI) impact assessment report. If as expected, the Applicant submits this information at Deadline 4, we aim to provide the majority of our positions at Deadline 5.

We draw attention to our comments submitted at Deadline 3 [REP3-143] in relation to the Applicant's Apportioning and HRA update [REP2-037]. In particular, we highlight the following outstanding requirements: the updating of Hornsea Project 4 impact figures for Flamborough & Filey Coast SPA guillemot and razorbill; the consideration of impacts from O&M vessels based on mortality rates of

1% and 10% (rather than 1% only) for red-throated divers within the Outer Thames Estuary (OTE) SPA; and the need for a more quantitative assessment of in-combination impacts from vessel activity for both the OTE and Greater Wash SPAs. Until these are addressed, Natural England will not be able to provide definitive advice on the in-combination assessments for these species at FFC SPA and OTE/GW SPAs respectively.

Natural England further highlights that the EIA assessment for species subject to displacement (Auks, Gannet) has not been updated to reflect the correct Hornsea 4 figures (the presented numbers are taken from the Hornsea 4 PEIR). We recommend updated cumulative totals are presented for those species subject to displacement (auks, gannet) that incorporate the appropriate H4 figures.

#### **5. Natural England's Position on the use of an combined Outline Landscape and Ecological Management Strategy (OLEMS)**

Within Appendix I of our Relevant Representations [RR-063] we advised that the Applicant combines the Landscape Management Plan (LMP) and the Ecological Management Plan (EMP) into an Outline Landscape and Ecological Management Strategy document. The Applicant stated within document 12.3 The Applicant's Comments to our Relevant Representations – Part 2 [REP1-034], and subsequently confirmed verbally, that it is their intention not to combine the EMP and LMP documents. Natural England fundamentally disagrees with this approach.

We reiterate our advice provided at Deadline 2 [REP2-063] where we advised the Applicant combines the Outline Landscape Management Plan and the Outline Ecological Management Plan into a joint Outline Landscape and Ecological Management Strategy (OLEMS). This request is based upon our experience with other Offshore Wind Farm NSIPs and has been successfully undertaken by East Anglia ONE North (EA1N) and East Anglia TWO (EA2). Given the nature of these documents, there is a need to cross reference between documents, particularly in discharging DCO requirements post consent. This will result in increased workload and complexity to work through the documents, which would be reduced significantly when presented as a combined document. By recent case example, Natural England has recently received a high volume of consultations from the Local Planning Authority (LPAs) for the Norfolk Projects, currently in the pre-construction onshore DCO requirement discharge phase on multiple plans associated with these documents which has considerably slowed the process and reduced our ability to engage. Another case example is Hornsea Project THREE where not only are there multiple documents and/or consultations associated onshore DCO requirement discharge, but multiple LPAs where consistency in advice and approach is required. In both cases we believe that the resource burden for all interested parties could have been lessened by having a combined OLEMS.

**6) Natural England's Further Response to the Examining Authority's Written Questions 2**

In Annex 2 below, Natural England has provided a response to the Examining Authority's Written Questions Q2.5.1.4, Q2.12.1.1 and Q2.12.1.4, deferred from Deadline 3.

For any queries relating to the content of this letter please contact me using the details provided below.

Yours sincerely

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Norfolk and Suffolk / East Midlands Area Teams

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**Annex 1 Natural England's Response/Summary Position to the Applicant's Documents Submitted at Deadline 4.**

<b>PINS Document Reference</b>	<b>Applicant's Document Name</b>	<b>Natural England's Response/Position Summary</b>
REP3-087	13.1 Gateshead Kittiwake Tower Modification Quantification of Productivity Benefits (Revision B) (Clean).pdf	Natural England will respond at Deadline 5.
REP3-088	13.1.1 Gateshead Kittiwake Tower Modification Quantification of Productivity Benefits (Revision B) (Tracked).pdf	
REP3-089	13.2 Collision Risk Modelling (CRM) Updates (EIA Context) Technical Note (Revision B) (Clean).pdf	Please see Natural England's advice in Section 4 of this letter.
REP3-090	13.2.1 Collision Risk Modelling (CRM) Updates (EIA Context) Technical Note (Revision B) (Tracked).pdf	
REP3-091	13.4 Sandwich Tern – Quantification of Productivity Benefits Technical Note (Revision B) (Clean).pdf	Natural England will respond at Deadline 5.
REP3-092	13.4.1 Sandwich Tern – Quantification of Productivity Benefits Technical Note (Revision B) (Tracked).pdf	
REP3-093	13.5 Marine Processes Technical Note (Revision B) (Clean).pdf	Please see Natural England's advice in Section 3 of this letter.
REP3-094	13.5.1 Marine Processes Technical Note (Revision B) (Tracked).pdf	
REP3-095	13.7 Habitats Regulations Assessment Derogation and Compensatory Measures Update (Revision B) (Clean).pdf	On completion of review, Natural England will respond at Deadline 5 if we consider it necessary.
REP3-096	13.7.1 Habitats Regulations Assessment Derogation and Compensatory Measures Update (Revision B) (Tracked).pdf	
REP3-115	16.14 Marine Mammals Technical Note and Addendum.pdf	Natural England will respond at Deadline 5.
REP3-101	16.2 The Applicant's Responses to the Examining Authority's Second Written Questions.pdf	On completion of review, Natural England will respond at Deadline 5 if we consider it necessary.
REP3-102	16.2.1 Appendix A - Supporting figures to the Applicant's Responses to the Examining Authority's Second Written Questions.pdf	
REP3-103	16.2.2 Appendix B - Supporting documents to the Applicant's Responses to the Examining Authority's Second Written Questions.pdf	

PINS Document Reference	Applicant's Document Name	Natural England's Response/Position Summary
REP3-107	16.6 The Applicant's comments on Natural England's Deadline 2 Submissions.pdf	Natural England welcomes the Applicant's response and will review against our Risks and Issues log as applicable. However, Natural England reiterates that <u>unless there are fundamental changes made within a named document or plan, our positions included within our risk and issues log are unlikely to change</u> . Our updated Risk and Issues Log will be submitted at Deadline 5.
REP3-009	3.1 Draft Development Consent Order (Revision F) (Clean).pdf	On completion of review, Natural England will respond at Deadline 5 if we consider it necessary.
REP3-010	3.1.1 Draft Development Consent Order (Revision F) (Tracked - Revisions E F).PDF	
REP3-011	3.1.2 Schedule of Changes to Revision F of the Draft Development Consent Order.pdf	
REP3-013	3.2 Explanatory Memorandum (Revision E) (Clean).pdf	
REP3-014	3.2.1 Explanatory Memorandum (Revision E) (Tracked).pdf	
REP3-021	5.5.4 Appendix 4 Gannet, Guillemot and Razorbill Compensation Document (Revision B) (Clean).pdf	On completion of review, Natural England will respond at Deadline 5 if we consider it necessary.
REP3-022	5.5.4.2 Appendix 4 Gannet, Guillemot and Razorbill Compensation Document (Revision B) (Tracked).pdf	
REP3-023	5.5.4.3 Annex 4B Auk Bycatch Reduction Feasibility Statement.pdf	On completion of review, Natural England will respond at Deadline 5 if we consider it necessary.
REP3-026	6.1.20 ES Chapter 20 - Onshore Ecology and Ornithology (Revision C) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-027	6.1.20.1 ES Chapter 20 - Onshore Ecology and Ornithology (Revision C) (Tracked).pdf	
REP3-040	6.3.20.1 ES - App 20.1 Extended Phase 1 Habitat Survey Report (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-041	6.3.20.1.1 ES - App 20.1 Extended Phase 1 Habitat Survey Report (Revision B) (Tracked).pdf	
REP3-054	6.3.20.13 ES - App 20.13 - Riparian Mammal Survey Report (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-055	6.3.20.13.1 ES - App 20.13 - Riparian Mammal Survey Report (Revision B) (Tracked).pdf	
REP3-042	6.3.20.2 ES - App 20.2 - Great Crested Newt Survey Report (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-043	6.3.20.2.1 ES - App 20.2 - Great Crested Newt Survey Report (Revision B) (Tracked).pdf	

<b>PINS Document Reference</b>	<b>Applicant's Document Name</b>	<b>Natural England's Response/Position Summary</b>
REP3-044	6.3.20.4 ES - App 20.4 Wintering Birds Survey Report (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-045	6.3.20.4.1 ES - App 20.4 Wintering Birds Survey Report (Revision B) (Tracked).pdf	
REP3-046	6.3.20.5 ES - App 20.5 - Breeding Birds Survey Report (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-047	6.3.20.5.1 ES - App 20.5 - Breeding Birds Survey Report (Revision B) (Tracked).pdf	
REP3-048	6.3.20.6 ES - App 20.6 - Initial Biodiversity Net Gain Assessment (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-049	6.3.20.6.1 ES - App 20.6 – Initial Biodiversity Net Gain Assessment (Revision B) (Tracked).pdf	
REP3-050	6.3.20.7 ES - App 20.7 - Onshore Ecology Desk Study (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-051	6.3.20.7.1 ES - App 20.7 - Onshore Ecology Desk Study (Revision B) (Tracked).pdf	
REP3-052	6.3.20.9 ES - App 20.9 - White Clawed Crayfish Survey Report (Revision B) (Clean).pdf	No further advice will be provided at this time from Natural England.
REP3-053	6.3.20.9.1 ES - App 20.9 - White Clawed Crayfish Survey Report (Revision B) (Tracked).pdf	
REP3-060	9.10 Outline Project Environmental Management Plan (Revision C) (Clean).pdf	Natural England will respond at Deadline 5.
REP3-061	9.10.1 Outline Project Environmental Management Plan (Revision C) (Tracked).pdf	
REP3-064	9.17 Outline Code of Construction Practice (Revision C) (Clean).pdf	Natural England will respond at Deadline 5.
REP3-065	9.17.1 Outline Code of Construction Practice (Revision C) (Tracked).pdf	
REP3-066	9.18 Outline Landscape Management Plan (Revision C) (Clean).pdf	Natural England will respond at Deadline 5. Please also see Section 5 of this letter.
REP3-067	9.18.1 Outline Landscape Management Plan (Revision C) (Tracked).pdf	
REP3-068	9.19 Outline Ecological Management Plan (Revision C) (Clean).pdf	Natural England will respond at Deadline 5. Please also see Section 5 of this letter.
REP3-069	9.19.3 Outline Ecological Management Plan (Revision C) (Tracked).pdf	
REP3-058	9.9 Outline Offshore Operations and Maintenance Plan (Revision C) (Clean).pdf	Natural England will respond at Deadline 5.
REP3-059	9.9.1 Outline Offshore Operations and Maintenance Plan (Revision C) (Tracked).pdf	
REP3-149	Norfolk Coast Area of Outstanding Natural Beauty (AONB) Responses to the Examining Authority's Second Written Questions (WQ2)	Natural England has provided an initial holding response as part of this letter. We intend to provide a full response at Deadline 5.

Annex 2 Natural England’s Further Response to the Examining Authority’s Written Questions 2.

Q2.5 Construction Effects Offshore		NE Response
Q2.5.1 Development Scenarios and Rochdale Envelope		
Q2.5.1.4	Applicant Natural England	<p><b>Statistical Differences between DEP-N and DEP as a whole</b></p> <p>The intention of the Applicant to retain optionality for DEP-N to be developed fully as opposed to being in conjunction with DEP-S, and the statistical basis underpinning this is stated [REP2-040].</p> <p>a) Is NE satisfied and in agreement with the justification?</p> <p>b) If not, in light of the statistical position put forward by the Applicant, explain why a minimal number of turbines should be built in DEP-N.</p> <p>Applicant and NE, if a commitment to reducing turbine numbers in DEP-N was required, where would this best be secured?</p> <p>a) We are not persuaded by the Applicant’s conclusion that there is no statistical difference between DEP as a whole and DEP-N, given that it is also conceded that there is an inadequate sample size to characterise DEP-N alone. NE highlights that the configuration of Digital Aerial Survey (DAS) transects was not designed to characterise DEP-N alone, but DEP as a whole.</p> <p>b) As set out in our Relevant Reps [RR-063], DEP-N supports higher densities of several seabird species, including sensitive collision risk receptors such as sandwich tern and kittiwake. If the ‘consent envelope’ being sought includes a scenario where DEP-N alone is brought forward, Natural England considers that the worst-case scenario (WCS) as regards collision mortality has not been clearly established in the Environmental Statement. Deriving an accurate WCS for DEP-N alone would not be straightforward, given the data available for DEP N alone, but there are potential options that NE could explore with the Applicant.</p> <p>Conversely, given a DEP-N alone scenario would result in a reduced spatial spread of turbines, displacement effects on species such as guillemot and razorbill are likely to</p>



Q2.5 Construction Effects Offshore			NE Response
Q2.5.1 Development Scenarios and Rochdale Envelope			
			<p>be reduced - although given the higher densities of those species in DEP-N, the reduction in effect would need to be estimated. In any event, as the Applicant is seeking the ability to develop in both DEP-N and DEP-S, this would not result in a change to the 'displacement WCS'. This highlights some of the complexities inherent in the Rochdale envelope approach, particularly when dealing with discrete arrays.</p> <p>c) NE notes that the Norfolk Vanguard Examination involved the Applicant for that project investigating, and then committing to, limits to the proportion of turbines that could be installed in the discrete West and East arrays of that project, as part of reducing the collision risk for target species (including kittiwake). These limits were secured in the DCO (Part 3, Detailed Offshore Parameters).</p>

Q2.12 Habitats and Ecology Offshore			NE Response
Q2.12.1 Effects on Ornithology			
Q2.12.1.1	Natural England	<p>Rates and Assumptions Within the Models</p> <p>Following the Applicant's submission [REP2-036] can NE confirm that there is no disagreement with the Applicant regarding:</p> <ul style="list-style-type: none"> <li>• Application of the Population Viability Analysis</li> <li>• Use of the Biologically Defined Minimum Population Scale</li> <li>• Avoidance rates (including use of macro avoidance)</li> <li>• Mortality rates</li> <li>• Counterfactuals</li> <li>• Determination of the 95% CI</li> <li>• The use, or not, of ranges</li> </ul> <p>If there is disagreement, NE identify and expand on the precise issues and specify what re-modelling or reassurances are required.</p>	<p>NE can confirm that on the whole we have either reached agreement with the Applicant, or the Applicant has presented appropriate alternatives to their preferred impact assessment outputs to enable us to draw conclusions regarding the impacts to seabird species from SADEP. There are still some species that require further information to be presented (namely guillemot, razorbill, common scoter and RTD), as described by NE at Deadline 3 [REP3-142] and [REP3-143]. This outstanding information has an impact on application of the PVA (for guillemot and razorbill) and mortality rates/ranges (for RTD).</p> <p>In some cases the range or scenario that NE will refer to in order to determine the impacts will differ from the approach taken by the Applicant. For example, NE place an emphasis on considering a range of displacement rates while the Applicant may place more emphasis on one rate to determine impact. However, this does not prevent NE from drawing conclusions.</p>
Q2.12.1.4	Natural England Royal Society for the Protection of Birds	<p><b>Outline Project Environmental Management Plan</b></p> <p>The Applicant submits that mitigation for red-throated divers is contained in the OPEMP [REP1-017]. For this species, and in general, do you consider the OPEMP to</p>	<p>Natural England anticipates that the Applicant will respond to our comments at Deadline 3 regarding RTD and AEOI for GW SPA ([REP2-037] [REP2-049]). Therefore NE will defer to Deadline 5 for further comment. Whilst we welcome that the Applicant intends to adopt the Best Practice Protocol, we have outstanding</p>

		be sufficiently detailed to give you assurances that appropriate mitigation will be implemented? Explain with reasons.	concerns regarding displacement and therefore wish to discuss other mitigation measures, including seasonal restrictions.
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