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THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE)
RULES 2010

NORFOLK BOREAS OFFSHORE WIND FARM

Planning Inspectorate Reference: EN010087

Deadline 7

**Natural England's response to updated Habitat Regulations Assessment
Screening and Integrity Matrices**

31st March 2020

Our Ref NE.NB.D7.09.HRAMatrices

Contents

1	Introduction	4
2	Screening Matrices	4
6	Alde-Ore Estuary SPA & Ramsar	4
25	Breydon Water SPA & Ramsar	4
26	Broadland SPA & Ramsar	4
38	Coquet Island SPA	5
69	Farne Islands SPA.....	5
74	Flamborough and Filey Coast SPA	5
83	Greater Wash SPA.....	5
87	Haisborough, Hammond and Winterton SAC	5
99	Humber Estuary SAC	5
106	Klaverbank SAC.....	6
129	Noordzeekustzone SAC	6
132	Norfolk Valley Fens SAC.....	6
134	North Norfolk Coast SPA & Ramsar.....	6
143	Outer Thames Estuary SPA.....	6
146	Paston Great Barn SAC	6
156	River Wensum SAC	6
170	Southern North Sea SAC	6
183	The Broads SAC	6
185	The Wash and North Norfolk Coast SAC	6

3	Integrity Matrices	7
6	Alde-Ore Estuary SPA and Ramsar.....	7
25	Breydon Water SPA and Ramsar	7
26	Broadland SPA and Ramsar (offshore)	7
26	Broadland SPA and Ramsar (onshore)	7
74	Flamborough and Filey Coast SPA	8
83	Greater Wash SPA.....	9
87	Haisborough, Hammond and Winterton SAC	11
99	Humber Estuary SAC	11
106	Klaverbank SAC.....	11
129	Noordzeekustzone SAC	11
132	Norfolk Valley Fens SAC.....	11
134	North Norfolk Coast SPA and Ramsar	11
143	Outer Thames Estuary SPA.....	12
146	Paston Great Barn SAC	12
156	River Wensum SAC	12
170	Southern North Sea SAC	12
183	The Broads SAC	13
185	The Wash and North Norfolk Coast SAC	13

1 Introduction

Please find below Natural England's comments on the following documents as submitted at Deadline 6.

- Norfolk Boreas Updated Appendix 5.3 Habitat Regulations Assessment Screening Matrices (Version 4) [REP6-006].
- Norfolk Boreas Updated Habitats Regulations Assessment Integrity Matrices (Version 4) [REP6-008].

At Deadline 5 the Examining Authority (ExA) issued a Rule 17 request for further information with regard to clarification of species listed as features of the SPA and/or Ramsar citations for those sites which are designated as both an SPA and Ramsar. The Applicant reviewed the relevant tables and updated the tables as appropriate for Deadline 6.

For the sake of brevity we have focused on those designated sites which have been screened in to the EIA, or where we have particular comment.

2 Screening Matrices

6 Alde-Ore Estuary SPA & Ramsar

It seems that a number of species have been added to the screening matrices for the Ramsar. The other species which have been added appear to fall within section 22 Noteworthy Fauna. The list of noteworthy fauna on the JNCC document, may have been included as they may meet the threshold criteria, however they have not been publicly consulted on and therefore do not constitute designated features for the purposes of HRA.

25 Breydon Water SPA & Ramsar

We note that species that are not qualifying features of the SPA have been removed.

The Ramsar Criterion are Internationally important waterfowl assemblage, Bewick's Swan *Cygnus columbianus bewickii* and Lapwing *Vanellus vanellus*. The list of noteworthy fauna on the JNCC document, have been included as they may meet the threshold criteria, however they have not been publicly consulted on and therefore do not constitute designated features for the purposes of HRA.

26 Broadland SPA & Ramsar

We note that Pink-footed Goose is not a designated feature of the SAC, but is listed as 'not yet classified' for the SPA in the Third SPA Review (Stroud et al. 2016).

The screening matrices now seems to only cover the onshore project area impacts; it should and we believe previously did consider collision risk from the offshore site. Operational collision risk alone and in-combination was previously screened in for the non-breeding qualifying features and the matrices should be updated to include these features.

38 Coquet Island SPA

Note that puffin is not a qualifying feature of the SPA in its own right, but is a component of the seabird assemblage feature.

Natural England suggests that the Applicant be clearer and note the potential for connectivity for auks with Boreas outside of the breeding season in its justification for screening out displacement impacts from the project alone on the assemblage feature of the site. Given the potential for all three auks to winter in the North Sea, this would therefore include consideration of the seabird assemblage feature at Coquet Island, which includes puffin. However, we agree with the Applicant that the proportions of these populations migrating through the Norfolk Boreas site are likely to be very small relative to BDMPS.

69 Farne Islands SPA

Natural England advises that the Applicant includes the designated features Roseate tern, guillemot and a seabird assemblage. With regard to the auk features of this site (guillemot and the seabird assemblage feature, which includes razorbill and puffin) we advise that the Applicant considers where there is an impact pathway in the non-breeding season (even if there is no impact pathway in the breeding season), as given the potential for all three auks to winter in the North Sea, this would therefore include consideration of these features for this site.

74 Flamborough and Filey Coast SPA

We note the addition of the seabird assemblage and removal of puffin from the screening matrices.

83 Greater Wash SPA

No comment

87 Haisborough, Hammond and Winterton SAC

The Applicant has greyed out increased suspended sediment and smothering, indicating it to not be an issue for Annex I sandbanks, however within the EIA the Applicant have considered deposition effects from Sandwave levelling etc. so there is an impact pathway and therefore a LSE during construction. As there is a LSE pathway smothering should be considered in the HRA Integrity Matrices.

99 Humber Estuary SAC

No comment

106 Klaverbank SAC

No comment

129 Noordzeekustzone SAC

No comment

132 Norfolk Valley Fens SAC

We note revised screening matrices to screen out narrow-mouthed whorl snail.

134 North Norfolk Coast SPA & Ramsar

We note that species that are not a designated feature of the SPA have been removed

143 Outer Thames Estuary SPA

This refers to the Outer Thames Estuary SPA and pSPA extension. The extension is now classified and need only refer to Outer Thames Estuary SPA.

146 Paston Great Barn SAC

No comment

156 River Wensum SAC

Natural England welcome that the River Wensum SAC designated features Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion* vegetation and Desmoulin's whorl snail have now been screened in for direct effects, due to the potential for HHD Drilling mud outbreaks.

170 Southern North Sea SAC

No comment

183 The Broads SAC

No comment

185 The Wash and North Norfolk Coast SAC

We note that grey seal have been removed as this is not a designated feature of the site.

3 Integrity Matrices

6 Alde-Ore Estuary SPA and Ramsar

Lesser black-backed gull: We welcome that the alone and in-combination collision figures discussed in the footnotes have been updated to account for the revised figures presented by the Applicant in REP5-059 and REP6-024.

Natural England agrees that there is unlikely to be an AEOI from collision risk from Norfolk Boreas alone. However, we do not agree with the Applicant that an AEOI can be ruled out for in-combination collision risk. We advise that an AEOI cannot be ruled out from in-combination collision risk for this feature – see reasons set out in our Deadline 4 response [REP4-040] and Natural England's Deadline 7 response (NE.NB.D7.08CRM) to the Applicant's revised cumulative and in-combination collision risk submitted in REP6-024. Additionally, please see our Deadline 4 responses [REP4-039 and REP4-040] for our responses regarding the Applicant's comments on precaution in assessments.

We note that the Applicant considers that the main driver of gull numbers in this SPA appears to be suitable management at the colonies to protect gulls from predators. We would query the relevance of this statement, (as we have previously in the assessment of the impacts from the Norfolk Vanguard offshore wind farm proposal) because the impacts of the project need to be considered in addition to any existing impacts on the colony and in the context of the population trend at the site.

25 Breydon Water SPA and Ramsar

Migrant non-seabirds: Based on the non-seabird migrant collision risk modelling document in Annex 7 of Appendix13.1 of APP-566, notwithstanding some methodological issues identified with this by Natural England, we do not anticipate an AEOI for the relevant features of this site from collision risk from Norfolk Boreas alone or in-combination with other plans and projects.

26 Broadland SPA and Ramsar (offshore)

Migrant non-seabirds: Based on the non-seabird migrant collision risk modelling document in Annex 7 of Appendix13.1 of APP-566, notwithstanding some methodological issues identified with this by Natural England, we do not anticipate an AEOI for the relevant features of this site from collision risk from Norfolk Boreas alone or in-combination with other plans and projects.

26 Broadland SPA and Ramsar (onshore)

We welcome the update to clarify the mitigation in place for functionally linked land for SPA and Ramsar species as secured within the OLEMS. Note the updated Integrity Matrices for Broadland SPA and Ramsar (onshore). Natural England is content that with the further information and mitigation proposed (at Deadlines 1 and 2) within the OLEMS

that there will not be an AEOI of the Broadland SPA or Ramsar features, from Norfolk Boreas alone or in combination.

74 Flamborough and Filey Coast SPA

We welcome that the alone and in-combination collision figures discussed in the footnotes for the kittiwake and gannet features of the site have been updated to account for the revised figures presented by the Applicant in REP5-059 and REP6-024.

Kittiwake: Natural England agrees there is unlikely to be an AEOI from collision risk from Norfolk Boreas alone. However, we do not agree with the Applicant that AEOI can be ruled out for in-combination collision risk. We advise that an AEOI cannot be ruled out for in-combination collision risk for this feature – see reasons set out in our Deadline 4 response [REP4-040] and our Deadline 7 response (NE.NB.D7.08 CRM) to the Applicant’s revised cumulative and in-combination collision risk submitted in REP6-024. Additionally, please see our Deadline 4 responses [REP4-039 and REP4-040] for our responses regarding the Applicant’s comments on precaution in assessments.

With regard to the Hornsea 3 further design mitigations, Natural England notes that whilst any amendments to the Hornsea 3 project design envelope (i.e. lower tip height and reduction in turbine numbers) would result in a proportional reduction in the collision estimates, Natural England will most likely be unable to agree on what the absolute level of reduction for Hornsea 3 will be as we believe the issues with the underlying baseline data have not been resolved.

Gannet: Natural England agrees there is unlikely to be an AEOI from collision risk from Norfolk Boreas alone, from displacement from Norfolk Boreas alone, and from combined collision plus displacement from Boreas alone.

We welcome that the Applicant has updated the in-combination collision plus displacement figures to take account of the revised in-combination collision totals presented in REP6-024. We also agree with the Applicant that AEOI can be ruled out for in-combination collision, from in-combination displacement and from in-combination collision plus displacement when Hornsea 3 and Hornsea 4 are excluded from the in-combination total. However, as set out in our Deadline 4 response [REP4-040] and our Deadline 7 (NE.NB.D7.08 CRM) response to the Applicant’s revised cumulative and in-combination collision risk submitted in REP6-024, due to Natural England’s significant concerns regarding the incomplete baseline surveys for the Hornsea 3 project, and the associated level of uncertainty as regards the potential impacts of that project, along with the inevitable uncertainty regarding the figures for Hornsea 4 (as from PEIR) Natural England is not in a position to advise that an AEOI can be ruled out for the gannet feature of the FFC SPA for in-combination collision, in-combination displacement, or in-combination collision plus displacement when Hornsea 3 and Hornsea 4 are included in the in-combination total.

Razorbill & Guillemot: Natural England agrees there is unlikely to be an AEOI on these features from displacement from Norfolk Boreas alone and in-combination with other plans and projects when Hornsea 3 and Hornsea 4 are excluded from the in-combination totals – see reasons set out in our Deadline 4 response [REP4-040]. However, as set out in our Deadline 4 response [REP4-040], due to Natural England’s significant concerns regarding the incomplete baseline surveys for the Hornsea 3 project, and the associated level of uncertainty as regards the potential impacts of that project, along with the inevitable uncertainty regarding the figures for Hornsea 4 (as from PEIR) Natural England is not in a position to advise that an AEOI can be ruled out for these features of the FFC SPA for in-combination displacement when Hornsea 3 and Hornsea 4 are included in the in-combination totals.

Seabird Assemblage: Natural England agrees there is unlikely to be an AEOI from collision risk and displacement from Norfolk Boreas alone and in-combination with other plans and projects when Hornsea 3 and Hornsea 4 are excluded – see reasons set out in our Deadline 4 response [REP4-040]. However, as set out in our Deadline 4 response [REP4-040], due to Natural England’s significant concerns regarding the incomplete baseline surveys for the Hornsea 3 project, and the associated level of uncertainty as regards the potential impacts of that project, along with the inevitable uncertainty regarding the figures for Hornsea 4 (as from PEIR) Natural England is not in a position to advise that an AEOI can be ruled out for this feature of the FFC SPA for in-combination when Hornsea 3 and Hornsea 4 are included.

83 Greater Wash SPA

Red-throated diver (RTD): Construction/cable laying – Natural England notes that the information provided by the Applicant in footnote b) for RTD at this site discusses the predicted mortality due to displacement resulting from the presence of up to two cable laying vessels. Based on a worst case scenario of up to two cable laying vessels present in the SPA at one time using the Natural England recommended displacement (100%) and mortality (1-10%) rates, at the upper end of our recommended range the predicted impact figures are not insignificant and may not result in no AEOI. However, our understanding from AS-024 (the Applicant’s response to our Relevant Representations) is that the same mitigation agreed for Norfolk Vanguard has been adopted for Norfolk Boreas, which includes: *‘during the months of January to March inclusive, construction activities consisting of cable installation for Work No. 4A and Work No. 4B must only take place with one main cable laying vessel.’* In which case, based on this commitment from the Applicant, we agree that an AEOI from displacement due to construction activities from the project alone and in-combination can be ruled out for RTD feature of the Greater Wash SPA (as set out in our response to Examining Authority Question Q8.9.3 in REP2-080). We advise that the footnote for this in the integrity matrix is updated to reflect this mitigation commitment.

Operation & maintenance (O&M) – With regard to operation and maintenance vessel movements our understanding from AS-024 (the Applicant’s response to our Relevant Representations) is that the same mitigation agreed for Norfolk Vanguard has been adopted for Norfolk Boreas, specifically:

- Avoid and minimise maintenance vessel traffic, where possible, during the most sensitive time period for red throated diver (RTD) in January/ February/ March.
- During the months of January to March inclusive, construction activities consisting of cable installation for Work No. 4A and Work No. 4B must only take place with one main cable laying vessel.
- Restrict vessel movements where possible to existing navigation routes.
- Avoid over-revving of engines (to minimise noise disturbance).
- Avoid rafting birds either in-route to array from operational port and/or within the array (dependent on location) and where possible avoid disturbance to areas with consistently high diver density.

This mitigation has been included in the Outline PEMP [APP-705]. Condition 14 (1) (d) (vi) of Schedules 9 and 10 of the updated draft DCO version 2 [AS019] secures that the final project environmental management plan (in accordance with the outline project environmental management plan) covering the period of construction and operation must include details of:

“procedures to be adopted within vessel transit corridors to minimise disturbance to red-throated diver during operation and maintenance activities.”

Therefore, based on the adoption of best practice vessel operations to minimise disturbance to RTD, we agree that an AEOI from operation and maintenance vessel movements can be ruled out for RTD feature of this site (as set out in our response to Examining Authority Question Q8.9.2 in REP2-080). However, we advise that the footnote for this in the integrity matrix is updated to reflect this mitigation commitment.

Little gull: We welcome that the alone and in-combination collision figures discussed in the footnotes have been updated to account for the revised figures presented by the Applicant in REP5-059 and REP6-024.

Natural England agrees that there is unlikely to be an AEOI from collision risk from Norfolk Boreas alone and in-combination with other plans and projects – see reasons set out in our Deadline 4 response [REP4-040] and our Deadline 7 response (NE.NB.D7.08 CRM) to the Applicant’s revised cumulative and in-combination collision risk submitted in REP6-024.

Common scoter: Natural England agrees that there is unlikely to be an AEOI from displacement due to cable laying vessels from Norfolk Boreas alone and in-combination with other plans and projects.

87 Haisborough, Hammond and Winterton SAC

Natural England cannot currently rule out AEOI on the Haisborough Hammond Winterton SAC beyond reasonable scientific doubt, as discussed in our recent response to the HHW SAC Position Paper [Our Ref:NE.NB.D7.O7.HHWSAC Paper], Position Statement Regarding the Proposed Site Integrity Plan for the Haisborough Hammond and Winterton Special Area of Conservation [REP4-041], Natural England's Written Summary of Oral Representations made at Issue Specific Hearing 4 on offshore effects including the Draft Development Consent Order [rep4-034], and Relevant Representation [RR-099]

Annex I reef and Annex I Sandbanks

There remains an industry wide confusion in relation to lasting permanent habitat loss impacts that occur because of construction activities, such as the placement of cable protection on sub-optimally buried cables, that has an ongoing impact over the life time of the project and beyond. The Applicants view is that impacts are assessed as an operational impact. However within the DCO/DML it is considered a construction impact and any maintenance activities of cables would then occur during the operational phase. We note that the Applicant has tried to address this concern by having an 'introduction of new substrate' column, but the HRA should reflect the above point.

99 Humber Estuary SAC

Natural England is satisfied that there will not be an AEOI on Humber Estuary SAC from Norfolk Boreas alone or in combination.

106 Klaverbank SAC

Natural England is content that there will not be an AEOI on the site from Norfolk Boreas alone or in combination.

129 Noordzeekustzone SAC

Natural England is content that there is unlikely to be an AEOI on this site from Boreas alone or in combination.

132 Norfolk Valley Fens SAC

Based on the information provided in the Clarification Note Natural England is content that there will not be an AEOI on the Norfolk Valley Fens SAC from Norfolk Boreas alone or in combination.

134 North Norfolk Coast SPA and Ramsar

Migrant non-seabirds: Based on the non-seabird migrant collision risk modelling document in Annex 7 of Appendix 13.1 of APP-566, notwithstanding some methodological issues identified with this by Natural England, we do not anticipate an AEOI for the relevant features of this site from collision risk from Norfolk Boreas alone or in-combination with other plans and projects.

143 Outer Thames Estuary SPA

Red-throated diver (RTD): As with RTD at the Greater Wash SPA with regard to operation and maintenance vessel movements our understanding from AS-024 (the Applicant's response to our Relevant Representations) is that the same mitigation agreed for Norfolk Vanguard has been adopted for Norfolk Boreas and that this mitigation has been included in the Outline PEMP [APP-705] and condition 14 (1) (d) (vi) of Schedules 9 and 10 of the updated draft DCO version 2 [AS019] secures that the final project environmental management plan (in accordance with the outline project environmental management plan). Therefore, based on the adoption of best practice vessel operations to minimise disturbance to RTD, we agree that an AEOL from operation and maintenance vessel movements can be ruled out for RTD feature of this site (as set out in our response to Examining Authority Question Q8.9.2 in REP2-080). However, we advise that the footnote for this in the integrity matrix is updated to reflect this mitigation commitment and that it is updated to refer to the Outer Thames Estuary SPA rather than the Greater Wash SPA.

146 Paston Great Barn SAC

Natural England notes the mitigation within the OLEMS and the points to be included in the Hedgerow Mitigation Plan. We would welcome an Outline Hedgerow Mitigation Plan being submitted as part of the examination as a certified document to ensure that all hedgerow management commitments can be accommodated across the Rochdale envelop (as raised in our D7 response).

Natural England is satisfied that there is an unlikely to be an AEOL on Barbastelle if the hedgerow mitigation outlined within the OLEMS, and Hedgerow Mitigation Plan can be implemented and secured.

156 River Wensum SAC

Natural England are content with the detail currently provided in the Clarification Note and Method Statement for Crossing the River Wensum and adjacent Watercourses [AS-5.D2.V1] and look forward to being consulted on the site specific water crossing plans post consent as specified within OCoCP. Natural England is content that there is unlikely to be an AEOL on the site from Norfolk Boreas from operations as set out. In relation to Environmental incident response and contingency Natural England welcome the commitment within the OCoCP to contact Natural England within 24 hours.

170 Southern North Sea SAC

Natural England believes there will be a likely significant effect on the harbour porpoise feature of the SNS Special Area of Conservation (SAC). We also believe AEOL cannot be ruled out at this stage. The production of a SIP allows for the HRA to be revisited when more information is available regarding all the relevant plans and projects and the implementation of the most appropriate mitigation methods at that time to ensure there will be no AEOL, as raised in our Oral Rep ISH4 (REP4-043). Natural England confirmed that

the only outstanding issue with the SNS SAC SIP was the lack of sight of the mechanism to ensure in combination impacts would be appropriately managed to ensure they remain within the site thresholds.

183 The Broads SAC

Natural England is satisfied that there is unlikely to be an AEOI on the Broads SAC from the Norfolk Boreas project alone.

185 The Wash and North Norfolk Coast SAC

We note that grey seal have been removed as are not a designated feature of the site; however text below still refers to grey seal. Natural England is content that there will not be an AEOI on the Wash and North Norfolk Coast SAC, due to Norfolk Boreas alone or in combination.