



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES

2010

East Anglia TWO Offshore Wind Farm

**Appendix A24 to the Natural England Deadline 13 Submission**

**Natural England's Summary Position and Final Advice to the Applicant's Deadline 12  
Submissions Relating to Offshore Ornithology**

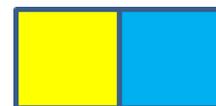
For:

The construction and operation of East Anglia TWO Offshore Wind Farm, a 900MW wind farm which could consist of up to 75 turbines, generators and associated infrastructure, located 37km from Lowestoft and 32km from Southwold.

Planning Inspectorate Reference: EN010078

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5<sup>th</sup> July 2021



## **Natural England's Summary Position and Final Advice to the Applicant's Deadline 12 Submissions Relating to Offshore Ornithology**

This document is applicable to both the East Anglia ONE North (EA1N) and East Anglia TWO (EA2) applications, and therefore is endorsed with the yellow and blue icon used to identify materially identical documentation in accordance with the Examining Authority's (ExA) procedural decisions on document management of 23rd December 2019. Whilst for completeness of the record this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it again for the other project.

### **Introduction**

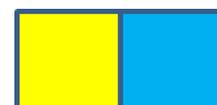
Natural England has reviewed the Applicant's Deadline 12 submissions in relation to offshore ornithology:

- EA1N EA2 Applicant's Comments on Natural England's Deadline 11 Submissions [REP12-030]
- EA1N and EA2 Applicant's Responses to Rule 17 Questions of 18 June 2021 [REP12-056]
- EA1N and EA2 Habitat Regulations Assessment Derogation Case D12 Update V7 [REP12-059]
- EA1N and EA2 Offshore Ornithology Without Prejudice Compensation Measures v4 (clean & tracked) [REP12-060 & REP12-061]
- EA1N and EA2 Deadline 12 Offshore Ornithology Cumulative and In-Combination Collision and Displacement Update [REP12-066]
- EA1N and EA2 Applicant's Comments on the Updated Report on Implications for European Sites

### **Natural England's Position on HRA Derogation and Without Prejudice Compensation Measures**

Natural England's position as set out to date in the below documents remains unchanged:

- REP4-088: Appendix A13 - NE Interim Comments on Ornithology Compensation Deadline 4
- REP5-082: Appendix A15 – NE Further Comments on Derogation Case [REP3-053] and Compensatory Measures [REP3-054]
- REP7-071: Appendix A15b – Natural England's Response to Offshore Ornithology and Derogation Documents [REP6-044, REP6-045 and REP6-046]
- REP9-065: Appendix A15c - Natural England's Comments on Offshore Ornithology Without Prejudice Compensation Measures v2 [REP8-089]
- REP10-051: Appendix A21 – Comments on Without Prejudice Compensation Mechanisms – Annex 1 – Prey Availability Compensation Mechanisms [REP6-046]
- REP12-089: Appendix A15d - NE Comments on HRA Derogation [REP11-069] Offshore Ornithology Compensation Measures [REP11-070]



To summarise our views on the significance of impacts for both EIA and HRA we include our summary position in Table 1 from REP12-090. Please note further summaries are also provided in our Deadline 13 Appendix I1j Risks and Issue Log.

**Table 1 Summary of conclusions for assessments of EA1N and EA2 cumulative / in-combination impacts with other plans and projects for species and designated site features**

<b>EIA species</b>	<b>EA1N and EA2 Cumulatively with Other Plans &amp; Projects</b>
Gannet: collision	Unable to rule out significant adverse impact excl. & incl. H4, DEP & SEP
Gannet: displacement	No significant adverse impact excl. H4, DEP & SEP Unable to rule out significant adverse impact incl. H4, DEP & SEP
Gannet: collision + displacement	Unable to rule out significant adverse impact excl. & incl. H4, DEP & SEP
Kittiwake: collision	Unable to rule out significant adverse impact excl. & incl. H4, DEP & SEP
Lesser black-backed gull: collision	No significant adverse impact excl. H4, DEP & SEP Unable to rule of significant adverse impact incl. H4, DEP & SEP
Herring gull: collision	<u>East Anglia One North:</u> No significant adverse impact excl. & incl. H4, DEP & SEP <u>East Anglia Two:</u> No significant adverse impact excl. H4, DEP & SEP Unable to rule of significant adverse impact incl. H4, DEP & SEP
Great black-backed gull: collision	Unable to rule out significant adverse impact excl. & incl. H4, DEP & SEP
Guillemot: displacement	Unable to rule out significant adverse impact excl. & incl. H4, DEP & SEP
Razorbill: displacement	Unable to rule out significant adverse impact excl. & incl. H4, DEP & SEP
<b>HRA species &amp; site</b>	<b>EA1N and EA2 in-combination with other plans &amp; projects</b>
Gannet, Flamborough & Filey Coast SPA: collision	No AEol excl. H4, DEP & SEP Unable to rule out AEol incl. H4, DEP & SEP
Gannet, Flamborough & Filey Coast SPA: displacement	No AEol excl. H4, DEP & SEP Unable to rule out AEol incl. H4, DEP & SEP
Gannet, Flamborough & Filey Coast SPA: collision + displacement	No AEol excl. H4, DEP & SEP Unable to rule out AEol incl. H4, DEP & SEP
Kittiwake, Flamborough & Filey Coast SPA: collision	Unable to rule out AEol excl. and incl. H4, DEP & SEP
Guillemot, Flamborough & Filey Coast SPA: displacement	No AEol excl. H4, DEP & SEP Unable to rule out AEol incl. H4, DEP & SEP
Razorbill, Flamborough & Filey Coast SPA: displacement	No AEol excl. H4, DEP & SEP Unable to rule out AEol incl. H4, DEP & SEP
Assemblage, Flamborough & Filey Coast SPA	No AEol excl. H4, DEP & SEP Unable to rule out AEol incl. H4, DEP & SEP
Lesser black-backed gull, Alde-Ore Estuary SPA: collision	Unable to rule out AEol excl. H4, DEP & SEP (no collisions apportioned from H4, DEP & SEP)



## **Further Advice Provided in Relation to Submitted D12 Documents**

### **1) HRA Assessment Derogation Case D12 Update Version 5 [REP12-059]**

1. **Natural England has reviewed the Applicant's updated derogations document [REP12-059] and can confirm that our advice provided in REP7-071, REP9-063 and REP12-089 remains unchanged.**
2. We consider that there remains some doubt that the Applicant has satisfactorily demonstrated that the 'alternatives test' has been met as regards reducing impacts on the Outer Thames Estuary SPA for impacts on red-throated diver.

### **2) Offshore Ornithology Without Prejudice Compensation Measures Rev 4 (Tracked) [REP12-061]**

#### **Summary**

3. **Natural England has reviewed the updated compensation measures and can confirm that our advice provided in REP7-071, REP9-065 ad REP12-089 remains unchanged.**

#### **Main Comments**

4. Natural England welcomes the intention behind the additions provided at Deadline 12. However, we advise that it is not appropriate for key details of the compensation measures and the associated governance to be deferred until the post-consent phase, as there is then a considerable risk that compensation measures which fully offset the impacts cannot be found and/or delivered. Please see our Deadline 12 Appendix A15d [REP12-089] response.
5. We also advise that when developing compensation measures with designated sites, consideration should be given not just to SPA species but also to SAC/SSSI habitats, as there are often overlapping designations. It is important that the compensatory measures do not interfere, and are commensurate with, the management of any designated site or feature of those sites. This is particularly true for the proposed LBBG compensation, given the broad location indicated falls within an SAC and an SSSI.
6. Natural England notes that there is no acknowledgement within the updated document of the

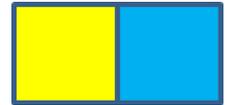


requirement to ensure that the onshore sites chosen for compensation are fit for purpose i.e. for locations with designated sites, that the location is already receiving the appropriate level of site management (the landowner is meeting their SSSI requirements which underpin the N2K sites); and that for other locations, the site is not going to be subject to modifications which may affect the effectiveness of compensation both initially and over the life time of the project. If this cannot be demonstrated, then the Applicant will need to factor in meeting these requirements into their proposals, and the time that would be needed to demonstrate this included in the timescales for implementation of any compensation.

7. Natural England welcomes the intention behind the additions provided at D12 as they provide some reassurance regarding the Applicant's awareness of site issues and sensitivities. However, we again highlight that too many aspects of the compensatory measures are being left to the post-consent phase. In addition please see our D12 response Appendix A15d [REP12-089] in relation to the strategic project.
8. Natural England welcomes the clearer commitment to collaborate with EA2 (or EA1N) and Boreas on the compensation measures, but highlights that no further information has been provided on key details regarding the measures. As highlighted in our D12 and D13 responses, Natural England is concerned about potential construction modifications being made at possible artificial nest locations due to port redevelopment, and thus the deliverability of compensation measures at these locations.
9. Natural England has no confidence in the nature of the measure that is being proposed as gannet compensation, which is further confounded by the lack of details regarding the measure.
10. Natural England is currently unable to support rat eradication as a compensation measure, as no detail has been provided on the location of the measures, and therefore we are unable to comment on the ecological merits for large auks. We continue to question whether there are islands where rat/large auk interactions are significant, and thereby offer opportunities for compensation.
11. Natural England is unable to support vessel route management as relevant compensation for displacement impacts from the turbines. We also do not agree that a 2km buffer between EA1N and the Outer Thames Estuary SPA is appropriate to fully mitigate the impacts. Please see our D12 Appendix A15d [REP12-089] response.

### **3) East Anglia ONE Non-Material Change Application to BEIS ('Ornithology Headroom')**

12. The response provided by the Applicant to question R17QF.2 [REP12-056] does not change Natural England's position, as outlined in our previous advice and our Deadline 12 [REP12-094]



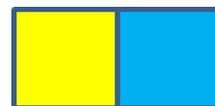
response.

13. As previously stated, there is no legal reason why a subsequent change under para. 2 of Schedule 6 of the Planning Act 2008 could not reverse an earlier change. There may be practical reasons (some of which the Applicant outlines) as to why a Developer may choose not to reverse an earlier change. However, the fact remains that Developers are not legally barred from applying for such a subsequent change. As such it is Natural England's view that changing the DCO using the route outlined in para. 2 of Schedule 6 of the Planning Act 2008 does not have the effect of crystallising the permission so that any future flexibility is lost.
14. The Habitats Regulations dictate that Habitats Regulations Assessment must be undertaken in accordance with the precautionary principle. There must be certainty beyond reasonable scientific doubt concerning the absence of adverse effects on site integrity. As such, it is Natural England's advice that worst-case scenario or maximum parameters included in the original DCO should continue to be used in cumulative or in-combination assessments of proposed projects. This provides the legal and practical certainty required for developers, regulators and other statutory bodies to plan, assess and comment on new development proposals as they come forward.
15. To address the Applicant's comments regarding Environmental Impact Assessment: the question of whether a subsequent change under para. 2 of Schedule 6 of the Planning Act 2008 would require an updated Environmental Statement (thus rendering the change material) would depend on whether there are new, or materially different, likely significant effects on the environment. This would need to be considered on a case-by-case basis.
16. As previously stated, Natural England supports efforts to find a strategic-level, industry-wide policy solution to this problem that creates parity for all new developments coming forward. For example, in Scotland consents are drafted in a way that secures final parameters on submission of detailed plans. Published guidance supports the use of these final parameters in subsequent cumulative and in-combination assessment.'

#### **4) Applicants Comments on RIES REP12-068 - Red Throated Diver (RTD) Displacement**

17. Within the Applicants comments on the RIES we note that at comment 013, they make an assertion about NE's position on RTD displacement for which we wish to provided further clarification on

*"The following point was made on the original RIES and is still valid. The Applicant wishes to clarify that they believe that NE's position is that the boundary between EA1N and the OTE*

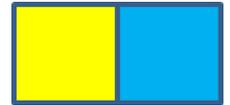


*SPA must be greater than 10km in order to avoid an AEol”*

Natural England’s position on the size of buffer required is stated in REP4-089 which is if the proposed windfarm was to be moved 10km away from the Outer Thames Estuary SPA boundary this is likely to negate any significant effects of displacement. This remains our position.

## **5) In-combination Totals**

18. Natural England notes that this document provides cumulative and in-combination collision risk and displacement abundance updates, replacing the previous update submitted at Deadline 11 (REP11-027). We welcome that the updates which include the agreed Hornsea Project Three figures and the East Anglia THREE figures used in the Norfolk Boreas Deadline 8.
19. Natural England provided extensive comments on the cumulative and in-combination collision and displacement figures in ‘Appendix 16C NE Comments on cumulative and in-combination collision risk’ (REP12-090), and these comments remain unchanged.
20. Natural England advise that the total the assessment should be based on is the total of all projects including, and then excluding, DEP & SEP and Hornsea 4. As the Norfolk Vanguard project is to be redetermined, we now advise that the project be treated in the same way as Norfolk Boreas, EA1N and EA2, i.e. that it is included in the cumulative totals with these projects and Hornsea 3 (now that updated figures are available for all species for this project). Hence totals are provided for all projects up to EA1N and EA2 (so including Vanguard, Boreas and Hornsea 3) but excluding Hornsea 4, Dudgeon Extension and Sheringham Extension, and then totals where all projects are included. We note that NE’s figures of all projects excluding DEP & SEP and Hornsea 4 equate to the row ‘Total with Norfolk Vanguard’ in the Applicant’s tables.
21. For gannet, kittiwake, and lesser black-backed gull Natural England agrees with the figures presented in Tables 1,2 and 3.
22. For Herring gull, the Applicant’s figures are incorrect. As stated in REP12-090 Natural England’s figure of 28 collisions per annum is for the 150 turbines layout at East Anglia One, whereas the Applicant uses the figure of 19 collisions per annum from the 102 turbine layout.
23. For Great black-backed gull an error was noted in the previous collision presented by the Applicants in Table A0.5 of REP11-027 for Hornsea 4 – the annual total should be 16.6 rather than 13.6 as



presented (3 collisions in the breeding season + 13.6 collisions in the non-breeding season = annual total of 16.6). Therefore, we have included this correction in our calculations which gives a total of 1,003 collisions for all projects including DEP & SEP and Hornsea 4.

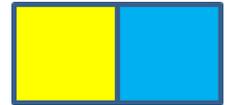
24. Natural England broadly agrees with the displacement abundance figures presented for gannet in Table 6, although we note a minor difference of 3 more birds in the Applicant's table compared to NE's figures.

25. We agree with the abundance figures that guillemot and razorbill in Tables 7 and 8.

## **6) Notes on SPA Population Size and Favourable Conservation Status**

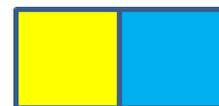
26. In the Applicant's submission regarding gannet compensation (**add ref to their document**) it is asserted that compensation measures will not be required, on the basis that gannet numbers at FFC are far above the population size at designation. However, we wish to make the general point to the ExA that the abundance target within the Supplementary Advice on Conservation Objectives for all seabirds (including the other qualifying features of FFC SPA) is caveated by "*... whilst avoiding deterioration from its current level as indicated by the latest mean peak count or equivalent*" (our emphasis). In other words, the population at classification should not be the only point of reference for understanding the impacts of a development on SPA populations. The requirement to prevent deterioration from current levels relates to the conservation purpose of SPAs i.e. to provide suitable conditions at sites to secure the favourable conservation status of the species in question. In this context, the population size at classification for a given SPA does not represent any sort of limit for what the site is capable of (or indeed required to) support as it makes its contribution to that conservation status, and population increases beyond that point in time should not be considered as somehow 'surplus'.

27. Turning to the issue of favourable conservation status, the Applicant also asserts that the current favourable conservation status of gannet means that compensation is not needed. For species, favourable conservation status relates to the long-term distribution and abundance of the populations of species in their natural range. It describes a situation in which species are maintaining themselves at all relevant geographical scales and with good prospects to continue to do so in the future. Again Natural England wishes to make the general point that should an impact assessment indicate that the population trend at an SPA for that species is likely to deteriorate e.g. through a Population Viability Analysis (PVA), it therefore also follows that the favourable conservation status of the species could be compromised.



## **7) Natural England's Response to London Array OWF Year 3 Ornithological Monitoring Report (REP11-122)**

28. Natural England is submitting the Final Ornithological Monitoring Report for London Array Offshore Windfarm 2021 prepared by APEM into Examination, please see Appendix A25 at Deadline 13. We consider this will assist the Examining Authority and interested parties as this report is referred to from Natural England's comments at Deadline 11 in Appendix A23 [REP11-122] and further in the paragraphs below.
29. Natural England wish to clarify some incorrect and misleading assertions that the Applicants have made in respect of the extent of the displacement caused by London Array. The Applicants have stated in their REP9-016 and in response to the question R17QF.3, that the extent of avoidance which Natural England has attributed to London Array was evident before the windfarm was built. This is not accurate.
30. Firstly, we highlight to the ExA that the extent of avoidance from London Array OWF has been quantified in detail by the final monitoring report carried out by that OWF project, and has not been 'attributed' to it by Natural England, as is stated by the Applicant.
31. Secondly, the Applicants appear to have misinterpreted the comparison of the Figure 8 from Irwin et al. (2018) and the distribution map from O'Brien et al. (2012). Whilst we agree that the pattern between the two maps does look similar, this does not mean that there is not any displacement evident as a result of the presence of London Array. Indeed, there is clear evidence of displacement, but to appreciate this one has to consider the scales on each of the maps, rather than just draw inferences from a general pattern. It is also necessary to consider the densities of divers present before and after the construction of London Array.
32. Figure 2 from O'Brien et al (2012) shows diver density as assessed on the basis of visual aerial surveys. The density of divers is between 0.251 and 5 divers per km<sup>2</sup> within the footprint of where London Array would subsequently be built. In contrast, the highest recorded diver density in Fig 2 of O'Brien et al outside the planned footprint of London Array is 7.5 – 15 birds/km<sup>2</sup>.
33. In contrast, Figure 8 from Irwin et al (2018) can be considered as a definitive estimate of density, as digital aerial methods can accurately count each diver, whereas the visual aerial surveys are known to underestimate counts (see our representations at REP4-087 and REP6-113). Digital aerial surveys by APEM in 2013 and HiDef in 2018 yielded four population abundance estimates across the entire SPA of c11,000, 14,000, 10,000 and 22,000. These surveys yielded a mean peak population of c



18,000, compared to 6,500 which was the estimated size of the red throated diver population based on the visual aerial surveys prior to classification in 2010.

34. However, despite the much higher overall numbers of divers across the entire SPA produced by the digital aerial surveys compared to the visual aerial surveys, the densities in Irwin et al (2018) across much of the footprint of London Array OWF, now with turbines installed, is under 0.1 divers per km<sup>2</sup> i.e. much lower than the densities reported in O'Brien et al (2012). In contrast, the maximum density category plotted in Figure 2 of O'Brien et al (2012) is 7.5-15 birds/km<sup>2</sup>, compared to >50 birds/km<sup>2</sup> in Irwin et al (2018). The reader needs to consider the legends on each of the two maps in order to interpret them appropriately, but the Applicant has neglected to do this. When this is done it is clear that displacement following the construction of London Array OWF has occurred, even if at first sight the general pattern of areas of relatively low and high diver density has not changed
35. Thirdly, the London Array final year post construction monitoring report assesses changes in the actual densities and compares diver densities during different construction phases in Figure 31. This figure shows that pre-construction and post construction densities only equalise after a distance of 11.5km from the London Area windfarm is reached. This figure is the same in the final version and the earlier version that the Applicants refer to in their submissions, so it is unclear why the Applicant's review of the earlier version did not detect this evidence.
36. It has been acknowledged for many years that the red throated diver hotspot within the SPA is north east of London Array, and this was the case before and remains the case after the construction of London Array. Indeed, the particularly high density of red throated divers in this part of the SPA, and the level of displacement that might have been caused by a second phase of London Array is understood to have been a factor in the Grampian condition attached to its consent and the fact that the second phase has never been constructed. However, it is completely false to assert that the presence of this hotspot is evidence of avoidance in those areas subsequently affected by the installation of the windfarms in this part of the SPA.
37. Natural England advises that the evidence of displacement from the London Array post-construction monitoring is clear and, along with the findings from other diver displacement studies, provides the evidential basis for Natural England's advice regarding the impacts of EA1N and EA2.