

SCOTTISHPOWER  
RENEWABLES

# East Anglia ONE North and East Anglia TWO Offshore Windfarms

## Submission of Oral Case

### Issue Specific Hearing 1 on 1<sup>st</sup> December 2020: Biodiversity and Habitats Regulations Assessment

Applicants: East Anglia TWO Limited and East Anglia ONE North Limited  
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Applicable to **East Anglia ONE North** and **East Anglia TWO**



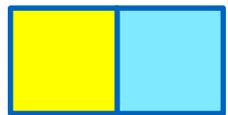
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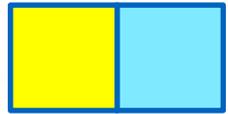
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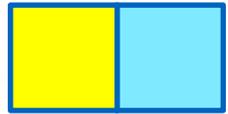
## Glossary of Acronyms

BEIS	Department for Business, Energy and Industrial Strategy
DCO	Development Consent Order
ExA	Examining Authority
ISH	Issue Specific Hearing
MMO	Marine Management Organisation
NE	Natural England
NPS	National Policy Statement
RSPB	Royal Society for the Protection of Birds
SoCG	Statement of Common Ground
TWT	The Wildlife Trusts
WDC	Whale and Dolphin Conservation



## Glossary of Terminology

Applicants	East Anglia ONE North Limited and East Anglia TWO Limited
East Anglia ONE North project	The proposed project consisting of up to 67 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
East Anglia TWO project	The proposed project consisting of up to 75 wind turbines, up to four offshore electrical platforms, up to one construction, operation and maintenance platform, inter-array cables, platform link cables, up to one operational meteorological mast, up to two offshore export cables, fibre optic cables, landfall infrastructure, onshore cables and ducts, onshore substation, and National Grid infrastructure.
National Grid infrastructure	A National Grid substation, cable sealing end compounds, cable sealing end (with circuit breaker) compound, underground cabling and National Grid overhead line realignment works to facilitate connection to the national electricity grid, all of which will be consented as part of the proposed East Anglia TWO project Development Consent Order but will be National Grid owned assets.
National Grid substation	The substation (including all of the electrical equipment within it) necessary to connect the electricity generated by the proposed East Anglia TWO / East Anglia ONE North project to the national electricity grid which will be owned by National Grid but is being consented as part of the proposed East Anglia TWO project Development Consent Order.
Projects	The East Anglia ONE North project and the East Anglia TWO project.



# 1 Introduction

1. This document is applicable to both the East Anglia ONE North and East Anglia TWO Development Consent Order (DCO) 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 (PD-004). Whilst this document has been submitted to both Examinations, if it is read for one project submission there is no need to read it for the other project submission.
2. Issue Specific Hearing 1 for the East Anglia ONE North Offshore Windfarm and East Anglia TWO Offshore Windfarm Development Consent Order (DCO) Applications (references EN010077 and EN010078, respectively) were run jointly and took place virtually on 1<sup>st</sup> December 2020 at 10:00am.
3. The Hearing ran through the items listed in the agendas published by the ExA on 24 November 2020. The Applicants gave substantive oral submissions at the Hearings and these submissions are set out within this note.
4. Speaking on behalf of the Applicants were:
  - Mr Colin Innes, partner at Shepherd and Wedderburn LLP;
  - Miss Stephanie Mill, senior associate at Shepherd and Wedderburn LLP;
  - Mr Paolo Pizzolla, project director for EIA and consenting at Royal HaskoningDHV;
  - Dr Mark Trinder, principal ornithologist at MacArthur Green;
  - Mr Fraser McDermott, principal environmental consultant at Royal HaskoningDHV; and
  - Mr Brian McGrellis, onshore consents manager for the East Anglia TWO and East Anglia ONE North projects.



## 2 Agenda Item 2: Applicants’ Approach to Habitats Regulations Assessment (HRA) Considerations

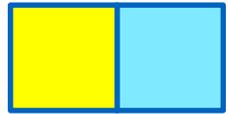
5. The Applicants have provided information on all of the features listed in **Table 1** in the Information to Support Appropriate Assessment (ISAA) (APP-043). It is the Applicants’ position in the ISAA that there would be no Adverse Effect on Integrity (AEoI) of any of the sites listed as a result of either project alone or in-combination effects. The Applicants have engaged with Interested Parties and have considered comments raised in Relevant Representations but do not consider that any of the issues raised alter the position stated at the time of the Applications.
6. The Applicants have engaged with the relevant stakeholders (NE, MMO, RSPB, TWT, WDC, LPAs) through the Evidence Plan process from 2016 to 2019 in the pre-application phase. Since submission the Applicants have engaged with these stakeholders through the SoCG process and a series of dedicated workshops.
7. **Table 1** below provides details of the Applicants’ understanding of Natural England’s position in respect of each of the sites and features listed.

**Table 1 European sites and features relevant to EA1N / EA2 and NE’s position**

European Site	Qualifying feature	Relevant effect from Project	NE position
Flamborough and Filey Coast SPA	Kittiwake	In-combination collision risk	AEoI cannot be ruled out
	Gannet	In-combination collision risk	Applicants awaiting NE comment on updates to cumulative tables provided at D1
	Razorbill	In-combination displacement	Applicants awaiting NE comment on updates to cumulative tables provided at D1
	Guillemot	In-combination displacement	
Outer Thames Estuary SPA	Red throated diver	Project alone displacement risk	NE awaiting update to modelling (D3)
		In-combination displacement risk	AEoI cannot be ruled out in combination



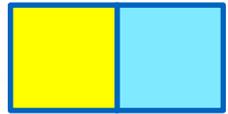
European Site	Qualifying feature	Relevant effect from Project	NE position
	SPA supporting features	Cabling effects	NE awaiting update to assessment (D3)
Alde-Ore Estuary SPA	Lesser black backed gull	In-combination collision risk	AEoI cannot be ruled out
Sandlings SPA	SPA supporting features	Cabling effects	AEoI cannot be ruled out
Southern North Sea SAC	Harbour porpoise	Behavioural effects from underwater noise	Applicants awaiting NE comment on HRA addendum provided at D1



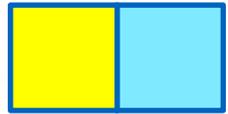
## 3 Agenda Item 3: Effects on Offshore Ornithology (Including HRA Considerations)

### 3.1 Outer Thames Estuary SPA

8. With regard to displacement, NE's position on the extent of displacement effects for red-throated diver is more conservative than that stated during the pre-application phase. This position is based largely upon studies conducted in the German Bight, the authors of which have stressed that their conclusions should not be assumed to apply in other locations.
9. The Applicants note that NE have accepted that the population of red-throated diver in the SPA has at least been maintained since designation and are therefore concerned with the distribution of birds within the SPA rather than mortality effects.
10. NE acknowledges that the estimates of the red-throated diver population in the OTE SPA have increased significantly, but attribute this to better data collection rather than changes in the population. The Applicants dispute NE's interpretation of the increasing abundance of divers reported for the SPA. While it is agreed that there has likely been some improvement in detection rates, it seems very unlikely that this has resulted in the three-fold increase in the abundance estimate. Therefore the Applicants disagree with NE's position that '*there is a possibility that this reflects a real increase in abundance over time*' and consider that rather than this being a 'possibility' it is the much more likely source of the majority of the observed increase.
11. The Applicants have been undertaking further analysis of this matter since receipt of NE's relevant representation.
12. The Applicants held a multiparty workshop on the 28<sup>th</sup> July 2020 with NE, RSPB and the MMO to discuss the evidence for displacement effects and to explore the magnitude of effects. An initial analysis of available evidence from the Outer Thames Estuary SPA was provided for that workshop alongside a comprehensive literature review. NE requested further analysis, including investigation of the potential for displacement effects at distances up to at least 12.5km.
13. In order to investigate the relationship between windfarms in the Outer Thames area of the southern North Sea and red-throated diver distributions the Applicants have undertaken a detailed statistical modelling analysis of survey data collected



- between 2002 and 2018, utilising a combination of static covariates (e.g. bathymetry and distance to coast) and a time-varying spatial smoothing term. The modelling approach is very similar to that used in the studies in the German Bight and as with those studies is based on analysis of aerial survey data.
14. Results have been provided to NE and RSPB (on 16<sup>th</sup> November 2020) and have been submitted at Deadline 3 (***Effects on Supporting Habitats of Outer Thames Estuary SPA*** (document to be submitted at Deadline 3, document reference ExA.AS-13.D3.V1)).
  15. Comparisons of the modelled outputs, considering counterfactual predictions (i.e. comparing predictions with and without the wind farm effect) have found:
    - A maximum reduction in abundance of 33% within the windfarms themselves,
    - A decline from 33% displacement to zero in the 6-7 km buffer.
    - Beyond 6-7 km abundances increase, indicating the shift in distribution caused by the reduced numbers in closer proximity to the windfarms.
  16. These observations are similar to those reported for London Array windfarm in post-construction monitoring. From a comparison of pre- and post-construction densities, the estimated displacement within the London Array site was 55% and within 11km of the windfarm densities were lower post-construction compared with pre-construction, following a slope of displacement from 55% to 0% by 11km. Crucially though, this distribution was not a wholesale change from that observed prior to windfarm construction which showed a similar pattern of densities (within up to 9km from where the windfarm is now located). Therefore, while the windfarm does appear to have reduced densities, this has been through an enhancement of the existing distribution of high and low densities rather than changed it overall.
  17. As with the results of the current analysis, divers were not completely displaced from any parts of the study area, including London Array itself.
  18. The difference between the predicted abundance within 7km of all windfarms in the analysis (London Array, Gunfleet Sands and Kentish Flats) estimated with and without windfarms, were 1,218 and 1,393 in 2013 and 2018, respectively. This represents **approximately 6-7% of the SPA population**.
  19. The main conclusion from this analysis is that, while the windfarms in the Outer Thames Estuary have influenced the distribution of divers, the effect is not as strong as that reported in the German Bight, and this echoes the recommendation in Vilela et al. (2019) that caution should be applied in drawing the results to other geographic areas.



20. Application of a larger buffer of complete avoidance (e.g. up to 10km, as NE have proposed as an appropriate interpretation of the German study results) is not supported by the current analysis and would result in over-estimating the potential displacement effects. It is also important to consider both the percentage of effect and also the actual numbers involved. In the case of East Anglia ONE North, on the basis of percentage of change (i.e. between with and without windfarms) a displacement effect of up to 40% initially appears to be a potentially large effect, but when consideration is given to the numbers of individuals affected the context becomes relevant: no more than 37 birds would be displaced. Even if a precautionary mortality rate of 10% is applied this equates to a maximum mortality of 4 individuals due to displacement from East Anglia ONE North.

### 3.1.1 Commitments made to reduce potential effects

21. The above notwithstanding, the Applicants have committed to provide a 2km buffer from the SPA and have revised the boundary of the East Anglia ONE North windfarm site accordingly. This reduces the potential displacement effect by 8% and would result in 2 fewer birds being displaced in the revised disturbance footprint. A maximum of 34 birds would be displaced in the worst case, which represents 0.002% of the SPA population.
22. Based upon the new analysis there is no case for any commitments to reduce potential effects for East Anglia TWO.

### 3.1.2 In-combination considerations

23. Consideration of the red-throated diver population of the Outer Thames Estuary SPA, which has either increased or at the very least remained stable (if the apparent increases are due solely to improved survey methods) since designation of the site, led the Applicants to consider that a quantitative in-combination analysis of displacement within the Applications was not required.
24. This was also based on the absence of evidence indicating there to be any obvious ecological consequences as a result of displacement. Nonetheless, in order to address NE's concerns, a detailed assessment has now been undertaken (as outlined above) and is submitted at Deadline 3.
25. In NE's written representation to the Applicants, it was stated that 47.4% of the SPA is within 10km of the existing windfarms, and therefore this percentage of the SPA was subject to some degree of displacement. The current analysis has found that the 10km distance, as derived from studies conducted elsewhere, is not applicable to the Outer Thames region and that 7km is a more appropriate maximum distance to consider. On this basis 31% of the SPA is within this distance of existing wind farms. However, it is important to note that the magnitude of displacement across these distances should not be given equal



weight. Hence, the 31% value is based just on area, and is effectively making an assumption that displacement within that distance (or even with 10km) is 100%, which is not the case. The simplest means to consider what windfarm displacement means in real terms is to use the difference between the summed predicted abundance within 7km, with and without windfarms. **Using the 2013 results this was 1,218 and using the 2018 results this was 1,393. These represent approximately 6-7% of the SPA population, rather than NE's suggestion of 47%.** In other words, by modelling the distribution of birds and making predictions from these data it can be seen that 7-8 times fewer birds are predicted to be at risk of displacement than would be the case if area alone was used as the metric.

26. Several of the windfarms suggested by NE as sources of displacement were in operation prior to designation of the SPA or were operational before the 2018 surveys for the revised population estimate for the SPA were conducted. Furthermore, Kentish Flats, Gunfleet Sands, Thanet and Greater Gabbard were fully operational prior to the previous surveys conducted in 2013.

**Table 1 Wind farms within or in close proximity to the Outer Thames Estuary SPA**

Within SPA	Outwith SPA
<b>Pre-designation of SPA</b>	
Kentish Flats operational (2005)	Thanet operational (2010) approx. 8km from boundary
Gunfleet Sands I & II operational (2010)	Greater Gabbard (construction from 2008, operational 2012) approx. 8km from boundary
London Array (consented 2006, construction 2011, operational 2013)	
<b>Post designation of SPA</b>	
Kentish Flats Extension (construction 2014, operational 2015)	Galloper (construction 2016, operational 2018) approx. 10km from boundary
Gunfleet III is two turbines (operational 2013)	

27. The Applicants therefore believe that several if not all of these projects should actually be considered as part of the baseline irrespective of any displacement effect they are having.
28. The Applicants' new analysis has shown that Thanet, Greater Gabbard and Galloper will not be having displacement effects upon the SPA. North Falls (Gabbard Extension) and Five Estuaries (Galloper Extension) are not within the planning system and therefore it is not appropriate to consider any potential effects due to them.

### 3.1.3 Certified documents

29. The In-Principle Monitoring Plan has been updated to provide for monitoring for red-throated diver at Deadline 3. The draft DCO will be updated to reflect this.



30. The Applicants note that NE have requested that an outline project environmental management plan (PEMP) be submitted. The Applicants anticipate that the reason for this is to provide comfort as to the procedures to be adopted within vessel transit corridors to minimise disturbance to red-throated diver as referenced in Condition 17(1)(e)(vi) of the Generation DML and Condition 13(1)(e)(vi) of the transmission DML. In order to address NE’s concern, the Applicants have submitted a **Red Throated Diver Best Practice Protocol** (document to be submitted at Deadline 3, document reference ExA.AS-22.D3.V1) at Deadline 3 and the DML conditions have been updated to make reference to this protocol.

### 3.2 Collision Risk: Flamborough and Filey Coast SPA and Alde Ore Estuary SPA

31. The Applicants have provided updated collision risk estimates (REP1-047 **Offshore Ornithology Cumulative and In Combination Collision Risk Update - Rev-01**). This update covers:
- An update for the apportioning methodology for lesser black backed gull (LBBG) in respect of the Alde-Ore Estuary (AOE) SPA using the methodology agreed by NE for Norfolk Boreas and allowing an updated collision estimate to be presented.
  - An update of all East Anglia offshore windfarm collision risk estimates accounting for the non-material changes (NMC) proposed for East Anglia THREE and East Anglia ONE and the increase in turbine draught height for the projects. A comparison is provided of the effect of these changes upon the project alone and in-combination effects of these projects. As detailed in table 3 below, the project alone effect of increasing the minimum draught height will reduce the collision risk estimates at the two windfarms by up to 15%.

**Table 2 Reductions in collision estimates with 2m increase in air draught**

Project	EA1N			EA2		
	Application (individuals)	Revised (individuals)	Reduction (%)	Application (individuals)	Revised (individuals)	Reduction (%)
<b>Gannet</b>	11.8	10.4	<b>11.9</b>	14.4	12.2	<b>15.3</b>
<b>Kittiwake</b>	2.6	2.4	<b>7.7</b>	2.0	1.7	<b>15</b>
<b>LBBG</b>	0.2	0.19	<b>5.0</b>	1.8	1.6	<b>11.1</b>

32. Compared with the collision estimates presented in the Projects’ cumulative and in-combination assessments at application, the total collisions at East Anglia THREE, East Anglia ONE and the Projects have been reduced for gannet by 62, kittiwake by 101, lesser black-backed gull by 15, great black backed gull by 21 and herring gull by 11, with proportional reductions for the relevant SPA populations shown in table 4 below.



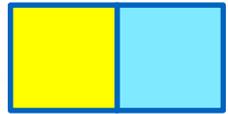
**Table 3 Reductions in collision estimates, all East Anglia projects comparing Application position to Projects Deadline 1 position.**

Project	All East Anglia Projects		
	Application (individuals)	Revised (individuals)	Reduction (%)
Gannet	44.6	35.9	19.5
Kittiwake	23	18.5	19.6
LBBG	6.3	4.9	22.2

33. For the full in-combination assessment for HRA, the Applicants have agreed with stakeholders to use the accepted position from the Norfolk Boreas Deadline 8 collision risk estimates as the new common position for all other projects. This therefore takes into account all post-application changes made to Norfolk Vanguard and Norfolk Boreas and includes the numbers submitted in the preliminary environmental information for Hornsea Four. This position was then further refined to account for the refusal of consent for Thanet Extension and the predicted kittiwake collision estimate for Hornsea Three as used by the SoS in the Hornsea Three HRA.
34. Given the uncertainties around the status of Hornsea 3 and the preliminary nature of Hornsea 4 numbers, totals have been presented both with and without the Hornsea projects.
35. Overall, the total in-combination mortality **reductions** from the agreed Boreas Deadline 8 position (including the Hornsea projects) are 10 for gannet, 114 for kittiwake and 3 for LBBG.
36. Overall, the updates described within the cumulative and in-combination collision risk update do not alter the conclusions of negligible to minor adverse significance for the EIA and no Adverse Effects on Integrity (AEoI) for the HRA within the assessments submitted (**Chapter 12 Offshore Ornithology** (APP-060) and the **Information to Support Appropriate Assessment Report** (APP-043)).
37. Project-alone collision mortalities for both Projects are already small when compared to other projects of a similar scale. These numbers have been further reduced from those submitted with the Applications and are now either fully offset or partially offset following the Projects' draught height design mitigation and the NMC applications for East Anglia THREE and East Anglia ONE.

### 3.2.1 Hornsea 3 compensation

38. The Applicants note that Hornsea 3 has identified the 'Lowestoft-Aldeburgh coast' as one of two 'search zones' for the siting of artificial nest structures as part of its proposed kittiwake compensation measures.
39. The Applicants will consider the implications of this upon their own proposals should the Hornsea 3 project gain consent on 31<sup>st</sup> December.



### 3.2.2 Precaution

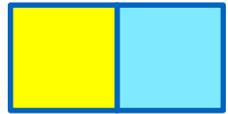
40. The Applicants have accepted the common position (i.e. Boreas Deadline 8 with updates for Thanet Extension and Hornsea 3) for the in-combination assessment. Notwithstanding this, the Applicants highlight that their conclusions of no AEol are valid in spite of the large amount of precaution remaining in these numbers.
41. The Applicants note that the SNCBs are due to provide updated advice on Bowgen & Cook (2018) and avoidance rates in early 2021 which could have implications for the conclusions on in-combination collision risk. Use of the more realistic, evidence based avoidance rate reduces the estimated collisions by 55.6% for gannet and 10.1% for kittiwake when taking the East Anglia TWO project alone results as an example.

### 3.2.3 Status of non-material changes for East Anglia projects

42. NE has questioned the legal certainty over revised collision estimates from East Anglia THREE and East Anglia ONE.
43. NE has long requested developers provide certainty over as-built positions, the non-material changes (NMCs) are a positive response by the Applicants to achieve this.
44. The NMC for East Anglia THREE is already submitted, and whilst not yet granted, the Secretary of State is the decision maker for all of the projects and therefore at the point at which a decision is made, the Secretary of State will be able to take into account the information before him in respect of each project at that point in time.
45. The NMC for East Anglia ONE will simply confirm the as-built position of that operational project.
46. The Applicants' case does not rely on the NMCs, as the Applicants maintain the position from the Application that the effects of the Projects are minimal and well below those considered *de minimis* by the Secretary of State in recent decisions. Rather the NMCs are provided to reduce uncertainty in the in-combination position. The Applicants intend to submit revised collision risk estimates for East Anglia ONE North (to account for the change to the order limits which will have affected the density calculations for birds within the site) at Deadline 4, the Applicants will present the in-combination case both with and without the NMC changes at that stage.

### 3.3 Flamborough and Filey coast SPA – displacement

47. The Applicants have provided updates on razorbill and guillemot displacement. The Applicants are waiting NE comment on updates to cumulative tables provided at D2. NE have not raised concerns with the seabird assemblage. The



Applicants have provided an assessment of the seabird assemblage in response to RSPB.

48. This information does not change the Applicants' position of no AEoI with regard to these features.
49. These updates are presented in ***Cumulative Auk Displacement and Seabird Assemblage Assessment of FFC SPA and Gannet PVA*** (REP2-006).

### 3.4 HRA derogation and compensation case

50. The Applicants do not consider there to be an AEoI on any of the European sites screened into the HRA either at the project alone or in-combination level. However, in recognition of current stakeholder views on these matters (not taking into account any potential changes of position that may result from the updates to assessments referred to elsewhere in this note), the Applicants have been considering potential mitigation options since receiving the Relevant Representations to address collision risk and displacement effects.
51. The Applicants have provided details on any proposed mitigation measures within their submissions at Deadline 3.
52. Notwithstanding the Applicants' position that there is no AEoI but recognising stakeholder views that following the implementation of mitigation, it may not be possible to rule out an AEoI at the Flamborough and Filey Coast SPA, Alde Ore SPA and Outer Thames Estuary SPA, the Applicants are in the process of investigating potential compensatory measures for the features of concern.
53. The Applicants have engaged with and received feedback from NE, RSPB and MMO on potential compensatory mechanisms. These options will then be refined and detailed by the close of the examination.
54. The Applicants have provided at Deadline 3 a without prejudice draft Derogation case (***HRA: Derogation Case*** (document to be submitted at Deadline 3, document reference ExA.AS-7.D3.V1)), supported by
  - A rationale for the limits of any further mitigation of effects through alternative design;
  - Confirmation that there are imperative reasons of overriding public interest for the Projects to proceed; and
  - A list of outline compensatory measures for red-throated diver, kittiwake, gannet and lesser black-backed gull



### **3.5 Monitoring**

55. The Applicants have committed to the inclusion of monitoring for red-throated diver displacement effects within the In-Principle Monitoring Plan and is secured within the updated draft DCO submitted at Deadline 3.

### **3.6 EIA Issues**

56. The Applicants await feedback from NE to submissions made into the examination to date.



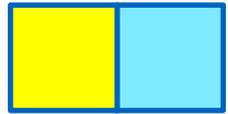
## 4 Agenda Item 4: Effects on Marine Mammals (Including HRA Considerations)

### 4.1 Southern North Sea SAC

57. All matters are now closed out with NE with the exception of matters relating to the HRA conclusions and the wording of the deemed marine licences (DMLs). The Applicants have provided **Information to Support Appropriate Assessment – Addendum for Marine Mammals - Rev-001** (REP1-038) to address NE’s concerns which relate to the interpretation of guidance. In addition, the in-principle Site Integrity Plan (SIP) has been updated to reflect the fact that, in light of this interpretation of the guidance, the SIP is required to cover in project-alone case for winter period effects. This has been submitted at Deadline 3. The Applicants anticipate further discussion with NE to confirm the conclusions of the assessment. With regard to the DML, NE wish to have limits on piling and Unexploded Ordnance (UXO) clearance written into the DML conditions. The Applicants consider that the Site Integrity Plan (SIP) is the most appropriate place for management measures to be described as this provides a flexible adaptive management mechanism (see Applicants’ response to WQ1.2.31, REP1-107).
58. All matters are now closed out with MMO with the exception of the wording of the DML. Matters outstanding are: a ‘stop clause’ for piling and whether UXO clearance should be included within the DML or whether a separate licence is required. With respect to the ‘stop clause’ for piling, the Applicants have considered this point in light of the submissions made by the MMO at ISH1 and have updated the draft DCO in order to address the MMO’s concerns.
59. The TWT have ongoing concerns with the approach to HRA assessment and mitigation. The Applicants and NE are agreed on the HRA methodology which has been the standard approach since the Special Area of Conservation was designated during the examination of East Anglia THREE. The Applicants continue to engage with TWT on mitigation matters and have committed to consult with them on the preparation of the SIP and the Marine Mammal Mitigation Protocol (MMMP) post-consent.

### 4.2 UXO clearance

60. The Applicant does not consider it necessary to apply for a separate marine licence for UXO clearance activities as such activities are assessed within the Environmental Statement (ES) and are controlled by the conditions of the DMLs. As such, the DMLs do not permit any UXO clearance activities to be undertaken

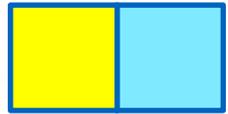


without the requirements of condition 16 of the generation DML and condition 12 of the transmission DML first being complied with. In drafting the UXO clearance conditions, the Applicants reviewed and considered the conditions contained within other UXO marine licences to ensure that the activities are appropriately controlled. The Applicants have updated the **draft DCO** at Deadline 3 (3.1) to make it clear that the notification requirements within condition 10 (Notifications and inspections) of the generation DML and condition 6 of the transmission DML apply to UXO clearance activities.

61. The DCO regime set out within the Planning Act 2008 is designed to remove the need for Applicants of nationally significant projects to obtain multiple consents from various different authorities. Instead, the necessary consents, powers and rights can be included within the DCO, and this includes deemed marine licences. Requesting that the Applicant apply for a separate marine licence for UXO clearance activities, particularly when such activities have been assessed within the ES, is contrary to the intended purpose of the DCO regime.

#### 4.3 Mitigation and monitoring

62. The Applicants consider that the SIP provides the best and most flexible mechanism to manage underwater noise. Given the uncertainty in understanding of underwater noise effects with work ongoing across industry, government and academia with reductions in effect footprints in the latest guidance, the Applicants consider that it would be over-precautionary to apply blanket conditions in the DML limiting any activity.
63. The SIP allows for adaptive management based upon a) any changes in understanding of effects and resultant changes in advice and b) the circumstances at construction in terms of project design and the contribution of other projects to in-combination effects.
64. As with any certified document the In-Principle Site Integrity Plan and the outline MMMP provide a framework for mitigation, management and, where appropriate, monitoring to be determined pre-construction in light of the actual circumstances at that time.
65. Both the SIP and the MMMP are secured by conditions of the DMLs. The final plans must accord with the outline plans and must be approved by the MMO prior to any noisy activities taking place.



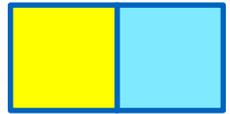
## 5 Agenda Item 5: Effects on Subtidal and Intertidal Benthic Ecology

### 5.1 Outer Thames Estuary SPA Supporting Habitats

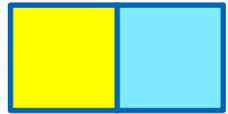
66. NE raised comments in their relevant representation (RR-059) regarding the effects of the export cables of the Projects on the supporting habitats of the Outer Thames Estuary SPA. The Applicants addressed these comments in their response to the relevant representation (AS-042), however NE responded with further comments (REP1-158) to the effect that they consider the information provided in AS-042 presents an assessment in environmental impact assessment (EIA) terms rather than HRA terms. The applicants have therefore prepared a note on ***Effects on Outer Thames Estuary SPA Supporting Habitats*** (document to be submitted at Deadline 3, document reference ExA.AS-13.D3.V1). This presents the assessment in the desired format.
67. These effects were considered in EIA terms in the Applications but were not included in the HRA. This was not commented on by stakeholders pre-application.
68. The Applicants note that NE provided information on the supporting habitats of the SPA which was not available pre-application and this is the basis of the new assessment. This assessment concludes that there would be no Adverse Effect on Integrity (AEoI) of the SPA in relation to the effects of cable installation and operation from the Projects, either alone or in-combination.
69. The conclusion is based upon a) the very small footprint of temporary disturbance of the supporting habitats and b) the fact that the majority of impact will be in waters of greater than 20m which are functionally irrelevant to red-throated diver as stated within the site's conservation objectives.
70. The HRA Screening and Integrity Matrices (APP-046) will be updated to reflect this assessment.

### 5.2 *Sabellaria spinulosa*

71. All matters are now closed out with NE with the exception of matters surrounding management of *Sabellaria* Reef. The **outline *Sabellaria* Reef Management Plan** was submitted at Deadline 1 (REP1-044), the Applicants believe that this has resolved NE's concerns subject to their review of the revised deemed marine licence conditions which secure this outline plan which will be included within the updated ***draft DCO*** submitted at Deadline 3 (3.1).



72. All matters are now closed out with MMO with the exception of a query on invasive species in the cumulative assessment. The Applicants have provided a response to MMO and await their confirmation on whether further information is required.



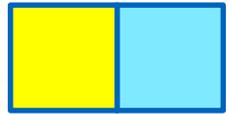
## 6 Agenda Item 6: Effects on Terrestrial Ecology

### 6.1 Sandlings SPA

73. As set out in **Table 4.1** of Chapter 4 (APP-052), the Applicants made a strategic decision early in the Projects' pre-application stage, for the onshore cable route to cross the Sandlings Special Protection Area (SPA) and the Leiston – Aldeburgh Site of Special Scientific Interest (SSSI) (hereafter referred to as the SPA) at its narrowest section which is approximately 140m in length.
74. Following consultation with Natural England, the Royal Society for the Protection of Birds (RSPB) and East Suffolk Council and Suffolk County Council (the 'Councils') the Applicants submitted an **Outline SPA Crossing Method Statement** (REP1-043) at Deadline 1) which considered two crossing techniques:
- Open trench crossing; and
  - Trenchless crossing.
75. Consultation with the abovementioned stakeholders has facilitated the development of additional mitigation measures from that within the original Applications, to reduce the potential impacts on the SPA of these techniques, in particular the open trench crossing technique which is the Applicants' preferred method of crossing the SPA.
76. The existing land use in the immediate vicinity of the SPA crossing comprises:
- Poor semi-improved grassland to the east which is used as horse paddock and is considered of low ecological value; and
  - dense/continuous scrub to the west which is considered of higher ecological value which provides suitable nesting habitat for nightingale and can potentially provide suitable habitat for nesting turtle dove.

#### 6.1.1 Open Trench Technique

77. The open trench technique will require two trenches each approximately 0.9m wide (assuming trench supports are used) to be excavated and up to five onshore cables laid within each trench (either directly within the trench or laid in cable ducts or protective covers).
78. In developing an open trench crossing of the SPA, the following mitigation measures will minimise the impact on, or promote biodiversity with the SPA:
- As per the Applicants' **Project Update Note** (REP2-007) submitted at Deadline 2, should both Projects be consented and then built sequentially,

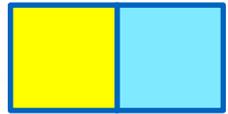


the Applicants have committed to installing the ducting for the second project in parallel with the installation of the onshore cables of the first project, avoiding longer term disturbance within the SPA.

- Adoption of a seasonal restriction ensuring that no construction works associated with the SPA crossing will be undertaken within the SPA or within the SPA crossing buffer during the nightjar and woodlark breeding bird season (1<sup>st</sup> February to 31<sup>st</sup> August) unless otherwise agreed with the relevant planning authority in consultation with the relevant statutory nature conservation body<sup>1</sup>. This seasonal restriction will avoid the potential for direct impact on the SPA qualifying species of nightjar and woodlark.
- A reduction in the width of each project's onshore cable route from the typical 32m to 16.1m within the SPA crossing to minimise any direct disturbance within the SPA.
- Works associated with the SPA crossing within the SPA and within the SPA crossing buffer are anticipated to be completed within a single non-breeding bird season (i.e. five months from September to January inclusive) with the need to extend works into subsequent non-breeding bird seasons considered to be low-probability.
- Temporary 'trackmat' roads (i.e. trackway or similar) will be installed within the SPA crossing to minimise or avoid the need to strip soil from under the 'trackmat', thereby ensuring underlying ground disruption is limited and reinstatement time is reduced.
- No cable jointing bays will be located within the SPA crossing or SPA crossing buffer, avoiding the need for further excavations in these areas during the wider onshore cable installation.
- In response to the possible loss of turtle dove foraging habitat within the onshore cable corridor (including but not limited to the SPA crossing), Work No. 14 will be used for temporary ecological mitigation which will include sowing turtle dove seed mix to create optimal feeding habitat throughout the construction and reinstatement period of part of the onshore cable route anticipated to be between the landfall and Snape Road (the 'relevant (turtle dove) construction period'). The seed mix will be sown in the calendar year prior to the relevant (turtle dove) construction period and the mitigation area will remain in place for at least one full breeding season following the completion of the relevant (turtle dove) construction period.

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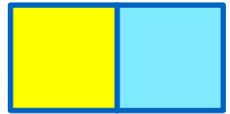
<sup>1</sup> Seasonal dependent reinstatement, landscaping and ecological mitigation works within the SPA crossing and SPA crossing buffer may be undertaken at any time subject to the provisions of the Ecological Management Plan, to be approved in accordance with Requirement 21 of the **draft DCO** (APP-023).



- Existing established hedgerows within Work No. 14 will be protected, whilst any unfavourable hedgerows will be managed to promote nesting habitat for turtle dove.
- The Applicants have also identified proposed Work No. 12A for nightingale and (if required) turtle dove mitigation. Comprising approximately 11,400m<sup>2</sup> this area will be managed for a period of five years from completion of the relevant (nightingale) construction period with the aim of providing functional habitat for breeding nightingale. Preparation of this mitigation area will occur during the non-breeding season in the calendar year prior to the SPA crossing works commencing.

### 6.1.2 Trenchless Technique

79. Trenchless techniques are methods of construction that allow ducts and cables to be installed under the SPA without breaking open the ground and digging a trench within the SPA boundary. For the purpose of this example, HDD is presented as the adopted trenchless technique.
80. The Projects will require up to ten HDD bores per project, to be installed at the SPA crossing (accommodating up to six electrical cables, up to two fibre optic cables and up to two distributed temperature sensing cables). The ground surface within the SPA crossing will not be disturbed during the HDD works.
81. HDD entry and exit pits will be located within Work No. 11 and Work No. 13.
82. Where the HDD entry or exit pits are located outside the SPA crossing buffer, there will be no disturbance of species within the SPA crossing, and a sufficient buffer of 200m will exist between the SPA boundary and the works, therefore no seasonal restriction will apply.
83. Where the HDD entry or exit pits are located within the SPA crossing buffer (i.e. within 200m of the SPA boundary), no construction works associated with the SPA crossing will be undertaken within the SPA crossing buffer during the nightjar and woodlark breeding bird season (14<sup>th</sup> February to 31<sup>st</sup> August) unless otherwise agreed with the relevant planning authority in consultation with the relevant statutory nature conservation body. The anticipated duration of the HDD works in this instance is 11 months spread over two consecutive non-breeding bird seasons.
84. It is noted that the seasonal restriction for an open trench technique starts on 1<sup>st</sup> February whereas the seasonal restriction for a trenchless technique starts on 14<sup>th</sup> February. This is due to the shorter duration of open trench works and the corresponding reduced programme and delivery risk associated with the open trench works compared to the trenchless technique. Whilst the Applicants consider a seasonal restriction start of 14<sup>th</sup> February to be appropriate for the species in question, given the reduced risk profile of the open trenching



technique, the Applicants can agree with Natural England's request for the seasonal restriction for works within the SPA and SPA crossing buffer to start on 1<sup>st</sup> February for open trench works only.

## **6.2 Onshore Ornithology and Other Terrestrial Ecology**

85. The Applicants have responded to SASES and SEAS Deadline 1 submissions on ecology and biodiversity within document references (ExA.AS-20.D3.V1 and ExA.AS-23.D3.V1 respectively) submitted at Deadline 3. The oral submissions made during the Hearing reflected the submissions made within these Written Representations.