



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES
2010

Natural England's Risk and Issues Log - Deadline 1 Submission.

For:

The construction and operation of the Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms located approximately 16km and 27km respectively from the Norfolk Coast in the Southern North Sea.

Planning Inspectorate Reference EN010109

20th February 2023

Natural England has created this Risk and Issues Log to track progress through the SEP and DEP examination process. The Risks and Issues Log will be submitted at each deadline and mark issues with a colour from our RAG scale depending on the level of significance of the issue. It should be noted that the colour scale is different from that used in the Statement of Common Ground provided by The Applicant.

The Risk and Issues Log is split into multiple tabs in line with the Appendices of our Relevant Representations submission.

- A. DCO DML
- B - Offshore Ornithology
- C- Ornithology Compensation
- D - Marine Mammals
- E - Marine Processes
- F - All Other Marine Matters
- G - Cromer MCZ
- H - Seascape and Landscape Visual Impact Assessment (SLVIA)
- I - Onshore Ecology

The Risk and Issues Log will be submitted alongside our written response at each deadline. This will reflect our position following a review of documents that we have considered in forming our position at each deadline.

Any issues added to the log during Examination (not included in Relevant Reps) are highlighted in Red in column C and then coded according to RAG status.
[New Text is in red]

Risks and Issues have been presented on a document by document basis for all Annexes except Annexes G (Cromer MCZ) and H (SLVIA) which have been presented as a hybrid of broad themes, which may stretch across several documents, and a document by document basis depending on the point(s) being addressed. For all tabs except tabs G and H, the blue header row at the top of each section refers to the document that the comments are addressing. For Tabs G and H, the blue header row either addresses the broadscale theme that cover the comments below with relevant documents referenced within individual comments where appropriate or in the same document by document manner which has been adopted for all other tabs.

<p>Purple Note for Examiners and/or competent authority. May relate to DCO/DML</p>	
<p>Red Natural England considers that unless these issues are resolved it will have to advise that (in relation to any one of them, and as appropriate) it is not possible to ascertain beyond reasonable scientific doubt that the project will not affect the integrity of an SAC/SPA/Ramsar and/or significantly hinder the conservation objectives of an MCZ and/or damage or destroy the interest features of a SSSI and/or comply fully with the Environmental Impact Assessment requirements. Addressing these concerns <u>may</u> require the following: <ul style="list-style-type: none"> new baseline or survey data; and/or significant revisions to baseline characterisation and/or impact modelling and/or significant design changes; and/or significant mitigation In addition, Natural England may use this category to highlight where there is a significant risk that an issue will not be sufficiently addressed within the Examination timescales. Consequently, issues that start out as Amber may progress to Red in the latter stages of the examination.</p>	
<p>Amber Natural England does not agree with the applicant's position or approach and consider that this could make a material difference to the outcome of the decision-making process for this project. Natural England considers that these matters <u>may</u> be resolved through: <ul style="list-style-type: none"> provision of additional evidence or justification to support conclusions; and/or revisions to impact assessment methodology and/or assessment conclusions; and/or minor to moderate revisions to impact modelling; and/or well-designed mitigation measures that are adequately secured through the draft DCO/dML and/or amendments to draft plans If these issues are not addressed or are unlikely to be resolved by the end of the Examination, then they may become a Red risk as set out above.</p>	
<p>Yellow Natural England doesn't agree with the Applicant's position or approach. We would ideally have liked this to be addressed prior to the examination but are satisfied that for <u>this particular project</u> it is unlikely to make a material difference to our advice or the outcome of the decision-making process and would not expect these matters to be an ongoing focus of the examination. However, we reserve the right to revise our opinion should further evidence be presented. It should be noted by interested parties that just because these issues/comments are not raised as significant concerns in this instance, it should not be understood or inferred that Natural England would be of the same view in other cases or circumstances. Once a Risk or Issue has been categorised as yellow, Natural England will not make further comment on the matter at subsequent deadlines, unless specifically requested to through ExA Questions. These rows will then be greyed out at subsequent deadlines in order to rationalise the risk and issues log.</p>	
<p>Green Natural England is in broad agreement with the Applicant's approach and has no significant outstanding concerns. As above, we reserve the right to revise our opinion should new evidence be presented. Once a Risk or Issue has been categorised as green, Natural England will not make further comment on the matter at subsequent deadlines, unless specifically requested to through ExA Questions. These rows will then be shaded grey at subsequent deadlines in order to rationalise the risk and issues log.</p>	



Summary Point	Natural England's Relevant Representation	RAG Status Rel and WR Rep D1	Consultation, actions, progression	RAG status Deadline 2	Consultation, actions, progression	RAG status Deadline 3	Consultation, actions, progression	RAG status Deadline 4
Appendix A - Development Consent Order, Deemed Marine Licences and related certified documentation								
1	Certain requirements and conditions do not include a maximum number of turbines per development.							
2	Natural England advises the text should be amended to include consultation of the relevant Statutory Nature Conservation Body (SNCB) in certain conditions.							
3	Natural England advises that the Landscape management plan and the Ecological management plan required in Schedule 2 part 1 requirements 12 and 14 should be amalgamated into an outline landscape environmental management strategy (OLEMS).							
4	There is no mention within Schedule 10 Part 2 Condition 13 of a requirement to microsite cables around identified features of conservation importance.							
5	Natural England has concerns about the deployment of scour and cable protection across the entire lifetime of the project.							
6	Natural England does not consider four months an appropriate timeframe to approve all plans and documentation within the deemed Marine Licences.							
7	Condition 6 does not secure a time requirement for the delivery of the compensation.							
8	With regards to Schedule 17 Part 1 and 2, conditions 2 and 11. There is no requirement for consultation with the proposed members of Sandwich Tern Compensation Steering and the Kittiwake Compensation Steering Groups prior to submission. Natural England advises these conditions are amended to include a requirement to consult the membership of the steering groups prior to approval of the plan of works.							
9	Annex D condition 22 - Natural England considers that it is important that measures of benefit are secured prior to works commencing.							
Appendix B - Offshore Ornithology								
10	Presentation of selected Collision Risk Mitigation parameters.							
11	Red-throated diver disturbance/displacement impacts.							
12	Currently adopted approach to assessing displacement during construction.							
13	Biologically Defined Minimum Population Size Apportioning for Kittiwake and Gannet in the non-breeding season.							
14	Updating Cumulative and in Combination tests to reflect recently examined projects.							
15	Influence of Highly Pathogenic Avian Influenza (HPAI) on calculated existing pressures in the environment and on data used to calculate the impact of the projects.							
Appendix C - Offshore Ornithology Compensation								
16	Sandwich Tern - proposal for Lach Ryan has potential to deliver compensation but is not sufficiently ambitious and lack detail. Natural England disagrees with the use of pontoons over islands and that the intervention at the Farne Islands SPA will deliver meaningful compensation.							
17	Kittiwake compensation requires proposal requires significant further development.							
18	Compensatory measures for Guillemot and Razorbill are relatively undeveloped and require further detail.							
Appendix D - Marine Mammals								
19	Currently presented mitigation measures for disturbance within the Marine Mammal Mitigation Protocol (MMMP) and the Site Integrity Plan (SIP).							
20	Natural England does not agree with the in-combination assessment of impacts to the populations of seals within the Wash and North Norfolk Coast SAC specifically.							
21	The vessel code of conduct is a key mitigation measure designed to protect marine mammals at important sites. This code of conduct should be a standalone statement and should be conditioned in the DCO/OML as to protect marine mammals throughout the various stages of the development.							
22	An updated assessment of in-combination seasonal disturbance to the Southern North Sea SAC to reflect all noisy activity is required.							
23	Further information is needed to demonstrate that an AEdi will not occur on the grey seal feature of the Humber Estuary SAC.							
Appendix E - Marine and Coastal Processes								
24	Further information should be provided in relation to sandbanks/waves, sediment deposition, sediment transport, and suspended sediments; with particular consideration of impacts to marine protected areas.							
25	Only the Cromer Shoal Chalk Bed (CSCB) MCZ has been identified as a receptor, no other MPAs have been included. All MPAs within the 201 should be identified, even if they are assessed in other chapters. For the reasons stated in our detailed comments, at present we are unable to agree with the likely significant effect (LSE) conclusions for Inner Dowling, Race Bank and North Ridge SAC and The Wash and North Norfolk SAC. We advise that further evidence be provided to support the LSE conclusions, as requested in our detailed comments.							
26	We advise monitoring of sandbank and sand wave recovery and migration is secured along with no sand wave levelling in the SEP in isolation scenarios.							
Appendix F - All Other Marine Matters								
27	Chemistry sampling: uncertainty remains as to whether or not contaminants fall below acceptable levels. Natural England considers pre-construction sediment contaminant monitoring surveys will be required.							
28	We advise the Applicant's commitment to avoid and microsite sensitive benthic features and habitats if identified by pre-construction surveys, such as those protected under Annex 1 and UK priority habitats identified under Section 41 of the NERC, 2006 Act also includes Annex 1 stony reef as a precautionary measure. This commitment needs to be secured through condition within the DCO/OML.							
29	Natural England seeks clarification as to status of the UK BAP 'Peat and clay exposures with piddocks' at Transect SS_21A.							
Appendix G - Cromer Shoal MCZ								
30	Natural England doesn't agree with the Applicant's conclusion that there will be no significant risk of the activity hindering the achievement of the conservation objectives for CSCB MCZ.							
31	Should cable protection be placed in the mixed sediment within the cable corridor, then the conservation objectives to restore/maintain features will not be achieved.							
32	In order to fully discharge regulatory duties under section 69 (1) of the MCAA, 2009, in combination and cumulative effects must be considered. Natural England considers the O&M phase activities for DEP (and/or) SEP combined with DOW, SOW, Hornsea Project Three and on-going Oil and Gas impacts will result in lasting habitat change / physical disturbance which will further hinder the conservation objectives of the CSCB MCZ.							
33	Natural England advises that further clarification and/or information is required to ensure that the significance of the impacts have been appropriately assessed and taken account off to inform the MCZ assessment.							
34	We advise that chalk with sediment veneer should be considered as subtidal chalk feature (HOCI 20) when assessing impacts. Thereby whilst we may be able to agree with an assessment that indicates that if cables are installed as described within the veneer, chalk will not be physically impacted, this position would change should cable protection be proposed in these areas no matter the current stability of the sediments within the glacial channel. Natural England therefore advises against locating the horizontal directional drilling exits pits in an area of subcropping chalk.							
35	Natural England is supportive of the planting of native oysters as measures of equivalent environmental benefit (MEEB). However, we advise against the placement of clutch and restoration of an oyster bed in the middle of a mixed sediment area. For this to be considered as additional, we advise that it would be better to extend/enhance the area of the mixed sediment on the boundary with impoverished coarse sediment e.g. in the centre of the 'c' shaped mixed sediment area or north/south of the blue rectangle.							
36	Natural England highlights the need for the implementation of adaptive management measures should monitoring demonstrate the impacts are greater than predicted or unforeseen.							
Appendix H - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project								
37	The turbines of SEP, in particular, are too big and too close to the coastline of the Norfolk Coast Area of Outstanding Natural Beauty (NCAONB). Natural England consider that the effects of SEP and DEP on the statutory purpose of the NCAONB is a Likely Significant Adverse effect. The key test is the acceptability of further significant adverse harm to the statutory purpose of the NCAONB, a designation already compromised by the existing OWFs.							
38	SEP, as presented in WCS2, will further degrade the quality of views out to sea. Their presence, and in particular the contrast in size between existing and proposed turbines, will lead to a further loss of the sense of wilderness and tranquillity which is still a special quality of this remote coastline.							
39	Turbines located in the southern portion of DEP under WCS2 would result in significant adverse effects on the natural beauty quality of the NCAONB. Here the apparent height of the turbines is the prime cause of significant adverse effects. Although the geographical extent of these effects covers a smaller area than those of the SEP scheme, they will nevertheless be transformative for those portions of the coastline effected.							
40	From our experience of previous NSIP examinations, it is unlikely that an agreement between Natural England and the Applicant on the significance of the impacts will be reached during the examination process. We are likely to 'agree to differ' in our views.							
Appendix I - Landscape and Visual Impact Assessment (LVIA) - Terrestrial aspects of the project								
41	Natural England Agrees with the Applicant that direct adverse effects will occur during the construction phase. During the operational phase, no landscape effects will occur.							
42	Should both projects be approved, onshore cabling should be installed for the two projects simultaneously and not sequentially. If sequential development is progressed, the first project must install the infrastructure for both projects. The importance of the AONB justifies the most effective mitigation being applied.							
43	Natural England advises that close attention is made to the advice of the NCAONB partnership and the relevant local authorities.							
Appendix J - Terrestrial Ecology								
44	Further clarity is required on some details of the assessment data collection methodology, baseline characterisation and mitigation measures. In addition, further clarity and commitment is required on the level and range of pre-construction surveys that will be carried out and how these will inform future mitigation decisions and undecided crossing point methods.							
45	Habitats Regulations Assessment, further clarity is required as to why the decision was taken to screen out three of the qualifying features of the River Wensum SAC between the initial screening assessment and the subsequent screening matrices and appropriate assessment given that a potential impact pathway exists.							
46	Natural England require the Outline Ecological Management Plan and the Outline Landscape Management Plan to be combined into one document (Outline Landscape and Ecological Management plan (OLEMS)).							
47	New at Deadline 1. Natural England (NE) has included an area known as Wensum Woodlands on a list for potential notification as a Site of Special Scientific Interest (SSSI) consideration due to the Barbastelle bat colony it contains. Therefore Natural England advises that in order to future proof the project, there must be no damage due to construction or operation and maintenance activities that may hinder notification of the site. Mitigation as highlighted above should be of gold standard given the importance of the site and the presence of Barbastelles.							



Point	Point Number(s) from Appendix A [RR-063]	Taken from Natural England's Relevant and Written Representations SEP and DEP Appendix A - Development Consent Order, Deemed Marine Licences and related certified documentation [RR-063]	RAG Status Red and WR Rep D1	Consultation, actions, progression	RAG Status D2	Consultation, actions, progression	RAG Status D3	Consultation, actions, progression	RAG Status D4
Document Used: [APP-024] 1.1 Development Consent Order									
A1	1	The interpretations have included a definition of the habitats regulations derogation provision of evidence, Annex 2A which outlines sandwich tern compensation implementation and monitoring plan. There is no issue on the face of this interpretation, however, the Applicant refers to a plan that may change during the examination process as discussions regarding the compensation are ongoing. Therefore, there may be a need to update this definition later. This comment applies to the interpretation related to Annex 3A as well. We advise there is no action needed now, but once derogations issues have reached their conclusion, this interpretation should be reviewed to ensure it remains appropriate.							
A2	2, 3, 11	The following Requirements and conditions do not include a maximum number of turbines per development. Natural England recommends adding additional text to make the limitation on the maximum number of turbines clear. <ul style="list-style-type: none"> Schedule 2, Part 1, Requirement 2 Schedule 10, Part 2, Condition 1 Comments raised on schedule 10 also apply to Schedules 11, 12 and 13 where similar conditions exist.							
A3	4, 5, 11	Natural England advises the text should be amended to include consultation of the relevant SNCB in each of these conditions. <ul style="list-style-type: none"> Schedule 10 Part 2 Condition 4: Due to the importance of in-combination and cumulative impacts of the development. Schedule 10 Part 2 Condition 13 (1): This condition should also include the need to consult the relevant SNCB as appropriate. Comments raised on schedule 10 also apply to Schedules 11, 12 and 13 where similar conditions exist.							
A4	6, 11	There is no mention within Schedule 10 Part 2 Condition 13 of a requirement to microsite cables around identified features of conservation importance. This is a standard mitigation measure and is normally secured within the requirements at Condition 13 (1) (a). Comments raised on schedule 10 also apply to Schedules 11, 12 and 13 where similar conditions exist.							
A5	7, 11	Schedule 10 Part 2 Condition 13 (c) (ii) allows for the scour and cable protection plan to be amended after installation. However, Natural England has concerns about the deployment of scour and cable protection across the entire lifetime of the project. We advise the Applicant amends the condition to make it clear the plan may only be amended and resubmitted to a maximum period of ten years after commencement of operation. Comments raised on schedule 10 also apply to Schedules 11, 12 and 13 where similar conditions exist.							
A6	8, 11	Natural England does not agree with the requirement for this plan to be submitted 4 months prior to construction. Natural England recommends that the timing is amended to require the Site Implementation Plan (SIP) to be submitted no earlier than 9 months and no later than 6 months prior to commencement. Comments raised on schedule 10 also apply to Schedules 11, 12 and 13 where similar conditions exist.							
A7	9, 11	Natural England does not consider 4 months an appropriate timeframe to approve all plans and documentation. Natural England recommends amending the time period to 6 months or adopt a more document specific timing requirement. We are willing to discuss with the Applicant and the MMO a more document specific timing requirement. Comments raised on schedule 10 also apply to Schedules 11, 12 and 13 where similar conditions exist.							
A8	10, 11	Natural England notes that Schedule 10 Part 2 condition 20 specifies the requirement of monitoring only. This monitoring is required due to uncertainties within the assessment. However, there is no requirement within the condition for the applicant, or regulatory authority, to take action should the monitoring highlight that the impact is significantly in excess of the impact assessed. Consideration should be given to amending the monitoring requirements to make it clear that, if identified impacts are in excess of those assessed, there is a need to provide a consideration of appropriate action that could be taken. Comments raised on schedule 10 also apply to Schedules 11, 12 and 13 where similar conditions exist.							
A9	12, 13	Natural England notes that Schedule 12 Part 2 Condition 19 does not contain a requirement for post construction monitoring of the Cromer Shoals Chalk Bed (CSCB) MCZ. Natural England advises that text should be added to this condition to make it clear the need to monitor the works within the MCZ are secured. The monitoring condition should also secure the requirement to take appropriate restoration measures or mitigations should the monitoring highlight an impact of concern beyond that predicted in the ES. Comments raised on Schedule 12 also apply to schedule 13 where similar conditions exist.							
A10	14, 20	Natural England welcomes the requirements of Schedule 17 Part 1 and 2, conditions 2 and 11 to submit the plan of works to the Sandwich Tern Compensation Steering Group and the Kittiwake Compensation Steering Group. We are however concerned that there is no requirement for consultation with the proposed members of the group prior to submission. The plan of works should only be agreed once the proposed members have been able to voice concerns, as has been the case with other OWF steering groups. Natural England advises these conditions are amended to include a requirement to consult the membership of the steering groups prior to approval of the plans.							
A11	15, 21	Natural England advises that the Applicant considers amending the wording of Schedule 17 Part 1 and 2 Conditions 3 and 12 to ensure that the submission of the monitoring plan is in accordance with the timetable and process approved under the plan of works. We recommend amending the wording to make it clear the implementation and monitoring plans will be submitted at the appropriate juncture.							
A12	16	When choosing a suitable compensation site to deliver compensation, consideration is needed on the potential for changes to environmental conditions at the location. These should include the potential for nearby developments that might reduce the effectiveness of the compensation delivered as part of this development.							
A13	17, 24	Natural England appreciates that monitoring is secured within conditions Schedule 17 Part 1 and 2 Conditions 4 (1) (f) and (2) (f) and 13 (f). This includes a requirement to implement adaptive management, or alternative compensation where monitoring reveals that impacts have reached certain thresholds. However, nowhere within the schedule is it secured that adaptive management measures, or alternative compensation measures must be implemented as approved. Natural England advises that the wording is amended to reflect this requirement.							
A14	18	The conditions set out in Schedule 17 Part 1 and 2 Conditions 5 and 14 disapply conditions 6, 7 and 8 as well as 15, 16 and 17 of the same schedule respectively. These provisions depend, at least partially, on a third party delivering the compensation. As this third party would be outside of the DCO, Natural England queries what would happen should the third party fail to deliver compensation?							
A15	19	Condition 6 does not secure a time requirement for the delivery of the compensation. Natural England advises that timing requirement should be included for both proposals.							
Document Used: [APP-083] 5.7.1 In-Principle Cromer Shoal Chalk Bed Marine Conservation Zone Measures of Equivalent Environmental Benefit Plan									
A16	22	See comment on DCO Schedule 17 Part 1 and 2 condition 3 (a) and 12 (a) [Point A11]							
A17	23	Natural England advises that the requirement for a marine licence should also include the timetables for expected issue of a marine licence and a demonstration that licence can be obtained within the timescales of the plan.							
A18	25	Annex D condition 22 secures that no works may commence until the plan is approved. However, it does not secure the measures of benefit being undertaken prior to works. We consider that it is important the plan secures that compensation measures will be in place and functioning prior to the impact occurring.							
Document Used: 9.5 SEP and DEP Offshore In-Principle Monitoring Plan [APP-289]									
A19	N/A	Additional comment. Natural England advises of the importance of securing a mechanism for adaptive management within the DCO. We advise the bulleted list in Para. 20 of the Offshore IPMP [App-289] omits this key consideration, and that the potential for certain monitoring to trigger the development of countermeasures (with associated monitoring of those measures) should be clearly stated in relevant tables of the IPMP, and incorporated into the DCO conditions where relevant.							
A20	N/A	Additional Comment. As the projects have included a requirement for cable protection within the CSCB MCZ, Natural England advises that a monitoring plan for any cable protection within the MCZ is included with the IPMP and secured within the DCO.							
A21	N/A	Additional Comment: In light of potential sediment disposal across the construction area including within the CSCB MCZ, Natural England advises that pre-construction sediment contaminant monitoring will be required for the purposes of suitability for sediment disposal. We advise this must be agreed with the MMO/CEFAS and secured within the DCO/DML.							
A22	N/A	Additional Comment: Natural England is concerned that no monitoring has been outlined which would provide evidence of the impacts of underwater noise to marine mammals. Please note that if the mitigation measures outlined in the MMMP are found to be insufficient then the DCO or another named plan must secure the action to be taken to address the identified issues and further monitored.							
A23	N/A	Additional Comment: Subject to Natural England's final position: <ul style="list-style-type: none"> Ornithological monitoring of species/impacts subject to compensation (Kittiwake, Sandwich tern and potentially gullmots, razorbills and red-throated diver) should be conducted at the windfarm site as well as at the compensation sites. Other species that are close to adverse effect (under HRA) or moderate adverse (under EIA) to be included as targets for monitoring. Any other key areas of uncertainty that feed into the impact assessment should be included, for example sandwich tern flight speed/flight heights, survival rates etc. 							
Additional Comments Section									
A24	N/A	Additional comment: Natural England advises that the Landscape management plan and the Ecological management plan required in Schedule 2 part 1 requirements 12 and 14 should be amalgamated into an outline landscape environmental management strategy (OLEMS). This was identified within App. 1 of Natural England's Relevant Representation [RR-063] and should have been included in Annex A [RR-063] as well for clarity. See Onshore Ecology Tab 1, Point 113.							
A25	N/A	Additional Comment: Natural England wishes to work with the Applicant to secure a condition for strategic pink footed geese mitigation. See tab 1 - Terrestrial Ecology Point 110.							



Point	Point Number(s) from Appendix B (RR-063)	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix B - Offshore Ornithology (RR-063)	RAG Status Red and WB Rep D1	Consultation, actions, progression	RAG Status D2	Consultation, actions, progression	RAG Status D3	Consultation, actions, progression	RAG status D4	
Document Used: [APP-097] Chapter 11 Offshore Ornithology. PINS Doc Number 6.1.11. Doc Ref:282-8H-2-GA-0001										
B1	Summary Section 2 and point 7	Collision Risk Management (CRM) Parameters: We would advise that, as a minimum, revised figures based on a subset of variables (i.e. using mean density data and CRM parameters for the non-breeding season only) from the Natural England's interim guidance notes are presented for Sandwich tern, gannet, kittiwake, great black backed gull, lesser black backed gull (LBBC) and little gull. See Section 2 and Appendix B1 of (RR-063) Relevant Representation of Natural England.								
B2	Summary Section 3	Natural England's Position: Natural England has identified significant adverse impacts at the EIA scale to gannet, kittiwake, great black-backed gull, gull, guillemot, razorbill and red-throated diver (RTD) irrespective of whether SEP and DEP are included in the cumulative totals. SEP and DEP will be making an additional contribution to those totals. At the end of the Horsea Project Four (HP4) Examination, Natural England could not rule out adverse effects on the integrity of the kittiwake, guillemot, razorbill and seabird features of the Flamborough Fly Coast (FFC) SPA, irrespective of whether SEP and DEP were included in the in-combination totals. We have also previously advised in-combination adverse effects cannot be ruled out for sandwich tern at the North Norfolk Coast SPA. Again, SEP and DEP will make contributions to the in-combination impacts. In the case of HBA, where SEP and DEP make an additional contribution to the in-combination impact, then a derogation case will be required, unless the impact can be substantially mitigated. Where impacts have been deemed to be significant at the EIA scale, the Applicant should demonstrate that its contribution to those impacts has been duly reduced through mitigation. Providing there are no further significant changes to the collision and displacement figures provided for SEP and DEP, Natural England is likely to reach a conclusion of no Adverse Effect on Integrity (AEI) for FFC SPA gannet feature when considering the in-combination impact including SEP and DEP. We have also previously advised that we cannot rule out AEI in combination for the LBBC feature at Alde-Ore Estuary SPA and RTD feature at the Outer Thames Estuary SPA. We also have concerns about adverse effects on the Greater Wash SPA RTD feature.								
B3	Summary Section 4	Biologically Defined Minimum Population Size (BDMPS) Apportioning in the Breeding Season: Natural England recommends that some level of apportioning is presented for qualifying features within mean max and mean max plus one standard deviation (SD).								
B4	Summary Section 5	BDMPS Apportioning for Kittiwake and Gannet in the Non-breeding Season: Natural England advises that it is not appropriate to correct the BDMPS apportioning in the non-breeding season for the proportion of adults for adult types in the case of kittiwake observed in the at sea survey data. The proportion of adults is already corrected for with the BDMPS figures, and applying this correction 'double corrects', reducing the level of impact apportioned (albeit to a relatively small extent).								
B5	Summary Section 6	Flamborough and Fly Coast SPA: Natural England advises that puffin, as a component species of the FFC SPA seabird assemblage, will need to be considered as part of the assessment of impacts on the seabird assemblage in the SPA. Mitigation Hierarchy: The assessment has presented scenarios for DEP that involve placing all turbines in DEP N (as opposed to turbines in both DEP N and DEP S); this scenario is somewhat at odds with the mitigation hierarchy, as it increases the impact to key species which are sensitive to collision. Natural England recommends this scenario is not progressed into any DCD that might be granted, as it departs from the mitigation hierarchy, would increase the project's impacts on key SPA features of concern and raise the demands on the proposed compensatory measures, the performance of which is inevitably uncertain.								
B6	Summary Section 10	Updating Cumulative and in Combination Totals: As the Applicant notes, the cumulative and in-combination assessments presented in the submission will need to be updated to reflect recently submitted/examined projects, particularly in the recent Horsea Project Four examination has resulted in Natural England's list on a number of qualifying features at FFC SPA. Natural England will need to receive up-to-date cumulative and in-combination assessments for review before we can provide our final advice.								
B7	Summary Section 11	Document Used: [APP-097] Chapter 11 Offshore Ornithology. PINS Doc Number 6.1.11. Doc Ref:282-8H-2-GA-0001								
B8	1 (and Summary Section 9)	The Applicant should consider if the different winter season length for RTD as presented by the Applicant would impact the assessment outcome, and consider seasonal restrictions to vessel movements in the SPA between 1st November and 31st March. Further investigation of all potential vessel movements within the Greater Wash SPA (and Outer Thames Estuary SPA) is needed, and the mitigation hierarchy applied to minimise the potential for SEP and DEP to contribute to these effects. Residual effects should be considered in tandem with permanent displacement effects arising from the presence of the SEP array.								
B9	2	Natural England recommends the Applicant reviews our guidance (see [RR-063] Appendix B2) on existing pressures in the wider environment, and potentially compile available information on current understanding of impacts of Highly Pathogenic Avian Influenza (HPAI) to key species/colonies of relevance to the SEP and DEP application (Species: Sandwich tern, kittiwake, guillemot, razorbill, little gull, RTD, gannet, LBBC), puffin, colonies: Flamborough & Fly Coast SPA, North Norfolk Coast SPA, Alde-Ore Estuary SPA, Greater Wash SPA). We advise the Applicant considers potential implications of HPAI for the impact assessments and submits an update into the Examination.								
B10	4	The current approach to assessing displacement during construction uses data from Theisbech et al (2019). However, Natural England advises it may make more sense to just extend the predicted operational impact by 1-2 years rather than going through the process of calculating a different approach. Acknowledging that, as the construction develops, there are more and more turbines present in the array site which may (whether operational or not) cause displacement. This is only relevant if there is a need for population modelling (i.e. the period of impact is 42 years rather than 40 years).								
B11	5	Natural England recommends the assessment of an annual impact at the largest BDMPS recommended for EIA, and notes that for some species the appropriate population scale is the breeding season population - please see our outline of this issue in point 4 (B3) above.								
B12	6	Regarding the assessment of impacts on RTD: please note the latest Statutory Nature Conservation Body (SNCRB) advice: https://hub.jnc.gov.uk/assets/9a8cb87c-8b6c-4cf1-9102-3902728dc67a								
B13	8	Natural England advises that Rampton 2 PER was published in Aug 2021. This should be included in total where appropriate. We acknowledge that the Applicant plans to update the assessment with up-to-date Horsea Project 4 totals. We highlight that a number of OWF PERs are anticipated in early 2023, and we advise data from relevant projects should be used to update cumulative/in-combination assessments as required.								
Document Used: [APP099] 6.4 Report to Inform Appropriate Assessment - Offshore Ornithology Sections										
B14	9	It is unclear why Dudgeon Extension Project (DEP) is not being considered for operational phase effects, given that OBM vessels may transit through the Greater Wash SPA on route to the array. Natural England advises the Applicant considers impacts on OBM vessels from DEP as well as Sheringham Extension Project (SEP), or clarify that OBM vessels from Great Yarmouth will not enter the SPA.								
B15	10, 12	As a minimum, the best practice protocol for all vessel movements through the SPA should be adhered to (see EAIN/EAZ pre-determination submissions regarding the details of the protocol). However, at this stage we are uncertain that this will be sufficient to avoid the project from contributing to potential adverse effects on the Greater Wash SPA. Natural England recommends that the implications of cable installation on extent of available habitat in the SPA are assessed. Please consider the need for a seasonal restriction to cable installation works between 1st November to 31st March inclusive or other mitigation measures.								
B16	11	We note that the gradient approach to RTD displacement, as used in EAIN and EAZ has been presented within the RAA. This accords with advice given in the ETG, but please note Natural England has recently provided updated advice on appropriate gradients, please see advice in Appendix B Table 3 of [RR-063] Relevant Representation of Natural England. Natural England advises the Applicant amends the tables/results accordingly.								
B17	13	The assessment usefully reveals that that 22.81% of the Greater Wash SPA already falls within 12km of an OWF. This inevitably raises the concern that there are existing adverse effects from the existing OWF to which SEP could add further operational displacement (i.e. an in-combination adverse effect. This matter will need further discussion during the Examination. We note in Para. 3079 that part of the area impacted by operational displacement was classified for species other than RTD. Natural England advises this should be quantified and explored in more detail. Natural England advises further investigation of the significance of the impacted area to RTD is needed to help better understand the likely contribution of SEP to in-combination displacement to RTD. If an in-combination adverse effect cannot be excluded, impact avoidance/reduction as an array design should be considered.								
B18	14	Data Natural England holds from the NNE manager for the colonies in question present some discrepancies, mainly minor. Please see Table B5 of Appendix B [RR-063] Relevant Representation of Natural England, highlighted cells indicate discrepancies. We have already provided the data to the Applicant. The key discrepancy is that there is productivity data for Scott Head in the Seabird Monitoring Programme in 2019 (where the Table reads no data). Natural England advises the Applicant to update the figures - and explore whether the changes warrant an updated PVA.								
B19	15	Natural England accepts there is potential for sandwich tern to be displaced, and while we welcome the review of possible evidence and the inclusion of this in the impact assessment, we do not consider the evidence base is sufficiently robust at this stage to incorporate Macro Avoidance into the collision risk assessment. Natural England will base our conclusions on collision alone and displacement and collision together (but not with the inclusion of macro avoidance in the collision assessment). However, we note that the advised change to the avoidance rate for sandwich terns from 98% to 99% is the equivalent of the proposed 98% feature with a 50% Macro Avoidance.								
B20	16	Please note Natural England recommends the use of the published flight speed (Fjn and Gymsi) (D018) of 10.3 m/s, as opposed to the selected flight speed of Fjn and Collier (2020) at 8.3 m/s, however we recognise the value in colony specific evidence and will take note of both outputs when forming our advice. Note also the advised changed AR of 99% - the use of a 50% MA and 98% AR is the equivalent of 0% MA and 99% AR. We advise that the Applicant should refer to the new CRM parameter guidance (see Appendix B1 of [RR-063] Relevant Representation of Natural England) and present the CRM outputs using the parameters set out in the new guidance (incl flight speed, but limited to a subset of mean values only (i.e. excluding models of outputs using the 95% C/SDs of key parameters).								
B21	18	We note a number of scenarios have been presented representing the range of possible legal and practical built turbine parameters. Natural England requires that an 'as-built' scenario is 'legally secure' and as such the starting point for assessment will be Scenario A. However, we will also take note of Scenario C (which is as built, but with excess capacity modelled as consented). We also observe there is a scenario not presented, which is all legally secured parameters (for this would presumably be scenario B but with Dudgeon reflecting the as-built). SEP and DEP are both within mean max foraging range for Lesser Black Backed Gull (LBBC), yet the apportioning rate in the breeding season is 0% - this is not reasonable, despite presence of other nearer colonies, some of which are much smaller than Alde-Ore Estuary SPA. Natural England advises it would be worth reviewing the submissions made in the Norfolk Boreau/Vanguard and EAIN/EAZ projects to see what data was marshalled regarding non-SPA colonies (e.g. Lowestoft), as some of those may fall within the foraging range. Natural England recommends developing an evidence-based approach to apportioning LBBC mortality to Alde-Ore SPA in the breeding season, considering all colonies within the mean max foraging range.								
B22	19	Kittiwake and Gannet apportioning has not been calculated correctly in the non-breeding season. The BDMPS proportions already take account of the number of adults likely to be present in the BDMPS, so it is not appropriate to correct (a second time) for the proportions of adults (or adult type in the case of kittiwake) in the BDMPS. For example, for gannet in the post breeding/autumn migration season the apportioning should be 4.8%, not 4.8%*91.4%. Please provide corrected figures.								
B23	20	HPAI appears to have spread rapidly within parts of the gammetry at FFC SPA in the 2022 breeding season. The consequences of this for the gannet population and its future growth rate are not known, but may have implications for the impact assessment (and indeed for other affected seabird species). Natural England will endeavour to keep the project updated during the Examination.								
B24	21	We advise the impact assessment may need to be updated in the light of HPAI impacts, though this cannot be confirmed at this stage (a point also relevant to other seabirds affected by HPAI).								
B25	22	In the case of guillemot and razorbill, we welcome the presentation of a range of displacement rates (30-70%) and mortality (1-10%) and will rely on a range-based approach to form our position as it acknowledges the uncertainties within the evidence base on this impact. However, we do not consider it appropriate (or suitably evidence based) to rely on one combination of displacement and mortality (50% and 1%) for the impact assessment.								



Point	Point Number (s) from Appendix D [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix D - Marine Mammals [RR-063]	RAG Status Rel and WR Rep D1	Consultation, actions, progression	RAG Status D2	Consultation, actions, progression	RAG Status D3	Consultation, actions, progression	RAG Status D4
Document Used: [APP-191] 6.3.10.1 Marine Mammal Consultation Responses, Information and Survey Data.pdf									
D1	3, 4, 5, 7, 8, 66 (RIAA)	Natural England queries the methods used to determine seal abundance, both the reference population and abundance from the aerial surveys. Consequently, we are concerned that the number of harbour seals impacted has been underestimated, and so the impact on the Wash and North Norfolk Coast SAC.							
Document used: [APP-192] 6.3.10.2 Underwater Noise Modelling Report									
D2	10	The Applicant should clarify how they will determine ADD duration/deployment for simultaneous piling and ensure the draft MMMP includes this measure. Should this increase the overall area over which ADD disturbance will occur, then this should be featured in the revised ADD assessment (see point D5).							
Document used: [APP-096] 6.1.10 Chapter 10 Marine Mammal Ecology									
D3	18, 75 (RIAA)	It is not clear whether simultaneous piling at one site is an option. If it is, the impacts of this scenario should be assessed as it may be the worst case scenario for some impact pathways. For example, it should be assessed whether it would lead to greater overlap with the SNS SAC.							
D4	19	The number of animals impacted after mitigation has been applied should be assessed.							
D5	21	An updated assessment of ADD disturbance, based on likely ADD duration, should be presented.							
D6	24	The approach taken may underestimate the seal usage of, and transit through, the site. More information on the movements of seals in the site and surrounding area, based on telemetry data, should be presented.							
D7	24, 26, 27, 28, 29, 30, 31, 32, 42 (CIA Screening), 79, 80, 81 (RIAA)	The assessment of indirect impact to seals due to changes in prey should be revised following our comments on: seal usage of the site, sensitivity of seals, likely responses of key prey, competition, recovery. Should the impact be determined as significant as a result, further mitigation should be considered. Post-consent monitoring could also be considered to validate the assessment. Following this, the impact pathway may also need further assessment in the CIA.							
D8	33, 34	The values used in the cumulative impact assessment should be reviewed and revised where needed: - number of vessels during construction - application of impact areas from SEP and DEP as 'standard' for offshore wind farms							
D9	22, 35, 37	The assessment concludes significant impacts from disturbance for grey seal and harbour porpoise in EIA terms. We do not agree that the mitigation proposed will reduce the impact, therefore the residual impact is still significant. Further mitigation is needed to avoid a significant disturbance impact. For harbour porpoise, further tools (e.g. DEPONS or iPCOD) could be used to investigate whether the disturbance impact may be significant.							
Document used: [APP-193] 6.3.10.3 Marine Mammals Cumulative Impact Assessment (CIA) Screening									
D10	40	The Applicant should provide further rationale as to why certain impacts have been screened out of the CIA.							
D11	43, 85 (RIAA)	Mobile sources (geophysical, seismic surveys) should be assessed as mobile rather than point sources in the CIA.							
Document used: [APP-288] 9.4 Draft Marine Mammal Mitigation Protocol									
D12	57,58	Natural England advises the Applicant provides information in the draft Marine Mammal Mitigation Protocol (MMMP) on the principles that will guide the acoustic deterrent devices (ADD) duration for unexploded ordnance (UXO) clearance and piling.							
D13	58	Clarify whether variation in strike rate will be included as a mitigation measures. Ensure this is reflected in the draft MMMP and the assessment.							
Document used: [APP-059] 5.4 Report to Inform Appropriate Assessment									
D14	65, 70	The pathway of physical and permanent auditory injury should be taken through to Stage 2 of the HRA, so that mitigation is taken into account at the appropriate stage.							
D15	67	The Applicant must undertake an in-combination assessment of impacts to the Wash and North Norfolk Coast SAC population specifically.							
D16	68	The assessment of impacts to seal SACs should include impacts to functionally connected habitat in the wider environment that is used by the seal features. Taking this into account, LSE may not be able to be excluded for this pathway.							
D17	75	The Applicant should consider committing to a maximum separation distance between piling that occurs on the same day.							
D18	83, 84, 86	The Applicant has identified the risk of a significant impact on harbour porpoise, in both EIA and HRA terms. The Applicant should update their assessment of in-combination seasonal disturbance to the Southern North Sea SAC to reflect all noisy activity that could occur through the season. Following this the area disturbed over a season may increase further. The Applicant should consider committing to additional mitigation at this stage to minimise the risk of AEol on the SNS SAC from noise disturbance. Natural England has significant concerns over the effectiveness of multiple SIPs to reduce the risk. In particular the SIP has limited measures to mitigate exceedence of the seasonal threshold. Further mitigation should also be considered to reduce the risk of a significant effect on the harbour porpoise North Sea management unit population.							
D19	90, 93	The Applicant has identified the risk of a significant impact on the grey seal feature of the Humber Estuary SAC. They have stated that it is not significant for several reasons that Natural England does not agree with. Further information is needed to demonstrate that an AEol will not occur. And/or, the Applicant should commit to further mitigation to reduce the risk of significant disturbance.							
D20	91	The Applicant should update their assessment of barrier effects with information on movements (from telemetry data) and area lost due to the effects.							
D21	94, 95	The Applicant should present an assessment of disturbance to harbour seals from the The Wash and North Norfolk Coast (WNNC) SAC during piling based on the 25km disturbance range from Russell <i>et al.</i> (2016).							
Document used: [APP-289] 9.5 Offshore In Principle Monitoring Plan									
D22	N/A	New issue raised at deadline 1, see issues A21-A23 on the DCO/DML tab							

Panel Number/Topic	Issue Description	Assessment Status	Consultation, actions, progression	Assessment Status	Consultation, actions, progression	Assessment Status	Consultation, actions, progression
11	1	1	1	1	1	1	1
12	2	1	1	1	1	1	1
14	3	1	1	1	1	1	1
16	4	1	1	1	1	1	1
18	5.1	1	1	1	1	1	1
18	7	1	1	1	1	1	1
18	8	1	1	1	1	1	1
18	9	1	1	1	1	1	1
18	10	1	1	1	1	1	1
18	11	1	1	1	1	1	1
18	12	1	1	1	1	1	1
18	13	1	1	1	1	1	1
18	14	1	1	1	1	1	1
18	15	1	1	1	1	1	1
18	16	1	1	1	1	1	1
18	17	1	1	1	1	1	1
18	20	1	1	1	1	1	1
18	21	1	1	1	1	1	1
18	22	1	1	1	1	1	1
18	23, 24, 27	1	1	1	1	1	1
18	28	1	1	1	1	1	1
18	29	1	1	1	1	1	1
18	30	1	1	1	1	1	1
18	31, 32, 34	1	1	1	1	1	1
18	33	1	1	1	1	1	1
18	34, 35	1	1	1	1	1	1
18	36	1	1	1	1	1	1
18	37	1	1	1	1	1	1
18	38	1	1	1	1	1	1
18	39	1	1	1	1	1	1
18	40	1	1	1	1	1	1
18	41	1	1	1	1	1	1
18	42, 43	1	1	1	1	1	1
18	44	1	1	1	1	1	1
18	45	1	1	1	1	1	1
18	46	1	1	1	1	1	1
18	47	1	1	1	1	1	1



Point	Point Number(s) from Appendix F [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix F - All Other Marine Matters [RR-063]	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG Status D2	Consultation, actions, progression	RAG Status D3	Consultation, actions, progression	RAG Status D4
Document Used: [APP-093] 6.1.7 Chapter 7 Marine Water and Sediment Quality									
F1	4 & 6	In light of sediment disposal potentially across the construction area including Cromer Shoal MCZ, we consider pre-construction sediment contaminant monitoring will be required for the purposes of suitability for sediment disposal. We advise this must be agreed with the MMO/CEFAS and secured within the DCO/DML.							
Document Used: [APP-094] 6.1.8 Chapter 8 Benthic Ecology									
F2	8	Whilst Natural England welcomes the Applicant's commitment to decommission cable protection within the MCZ we advise that an Outline Decommissioning Plan should be provided at the consenting phase to secure and assess decommissioning activities in one location. However, regarding the decision to leave in-situ scour protection, surface laid cables and external cable and crossing protection outside the Cromer MCZ, we continue to advise that regardless of legislation, decommissioning should aim to remove infrastructure to avoid irreversible (permanent) habitat loss, thus returning the seabed habitat to its pre-developed baseline status as required by OSPAR.							
F3	10	Natural England welcomes the commitment to microsite around sensitive benthic features and habitats if identified by preconstruction surveys, such as those protected under Annex 1 and UK priority habitats identified under Section 41 of the NERC Act 2006. However, Natural England advises this commitment needs to be secured through a condition within the DCO/DML or within an outline named plan. Natural England agrees any Annex 1 habitat such as Sabellaria spinulosa reef habitat identified would be outside of a site designated for benthic features. However, with regard to footnote 6, we advise if Annex 1 habitat is identified the Applicant recognises their value to be equivalent to if they were within an MPA. This forms part of the UK government strategy of achieving the UK Marine Strategy of achieving Good Environmental Status (GES) of the UK wider seas regardless of whether sensitive species and habitats are located within an MPA network. We advise the Applicant to be fully committed to the protected status of protected sensitive habitats and species, regardless of whether they are located within a MPA.							
F4	11	Natural England welcomes the Applicant's consideration of the guidance documents as outlined. However, when developing outlined named plans, we advise that the Applicant also uses guidance developed by Natural England for "Environmental Considerations for Offshore Wind and Cable Projects". This includes "Offshore Wind Marine Environmental Assessments: Best Practice Advice for Evidence and Data Standards" for baseline characterisation, pre-application, data and evidence expectations at examination and for post-consent monitoring. In addition, advice is also provided on "Nature considerations and environmental best practice for subsea cables in English inshore and UK offshore waters".							
F5	13	Natural England welcomes the characterisation of the out-cropping chalk feature observed from seabed video imagery at Station EC-26 adjacent to landfill using guidance within NERR080 Natural England Marine Chalk characterisation Project. However, Natural England continues to advise that across much of Cromer Shoal MCZ there are areas of subtidal chalk lying underneath a thin veneer of sand/sediment which we also consider should be protected as outcropping chalk/subtidal Chalk Feature of Conservation Importance (FOCI). This is in accordance with our advice on fishing activities and would ensure consistency with MCZ assessments undertaken for other industries.							
F6	14	We acknowledge the assessments for stony reef at Stations EC_03 and EC_24 were classed as 'low' resemblance to stony reef according to Irving (2009 and Golding (2020) and therefore at these locations where seabed imagery was acquired there was insufficient evidence to classify as Annex 1 Reef Habitat. However we advise that the habitat classification for Station EC_03 of sublittoral coarse sediment (SS-SCS) and Station EC_24 of circalittoral mixed sediment (SS-SMxCMx) are among the biotopes listed in Golding (2020) as biotopes where reef may be found. As such we continue to advise that the potential for stony reef Annex 1 habitat is not entirely ruled out from pre-construction survey assessment. We advise the Applicants commitment to avoid and microsite for Annex 1 habitats continues to include Annex 1 stony reef as a precautionary measure and as such is secured in DCO/dML named outline plans.							
F7	15, 18	It is stated "A section of transect SS_21A in the SEP wind farm site represented the biotope A4.231 'Piddocks with a sparse associated fauna in sublittoral very soft chalk or clay". This biotope is classed as illustrative of the UK BAP priority habitat 'peat and clay exposures with piddocks'. We request that the Applicant provides clarification on the classification of this habitat and as a precautionary measure commitments to avoiding impacts to this feature if identified.							
F8	16	Please be advised that, Sabellaria spinulosa reef of all quality is protected under Section 40 and 41 of the Natural Environmental and Rural Communities (NERC) Act 2006. Therefore, outline DCO/dML named plans must be updated to demonstrate that due regard will be given to the conservation of this habitat where it forms definable reef.							
F9	19, 21, 23	In the context of the conservation objectives for the features /habitats within the Cromer MCZ, Natural England advises that the sensitivity of these habitats within the site should be considered high in recognition of their representative protection 'value' through the MCZ and not medium as classified by MarESA. We advise that the impact significance of 'moderate adverse' is applied to both the assessment of the habitats and biotopes within the MCZ and the WCS for Annex 1 / UK BAP priority habitat 5. spinulosa reefs and the UK BAP priority habitat 'peat and clay exposures with piddocks'. The assessments should be updated to inform the HRA/MCZ Assessments.							
F10	20	We advise that a commitment is required to mitigate potential operational impacts during any operational and maintenance (O&M) activities to ensure that every effort is made to avoid impacts to Annex 1 / UK BAP habitats if naturally present on the surrounding seabed.							
F11	22	Impact 3: Long Term Habitat Loss. Natural England welcomes the commitment, as also outlined in the Outline CSCB MCZ CSIMP, to the use of removable rock bags as cable protection, thus minimising permanent habitat loss within the MCZ. However, every effort should be made to minimise the need for cable protection within the MCZ. Natural England advises that commitment to undertaking a stepwise approach through the mitigation hierarchy.							
Document Used: [APP-188] Appendix 6.3.8.5 – Benthic Habitat Mapping									
F12	24	Figs. 22 and 23 provides best available evidence of sediment most likely to support herring spawning and sand eel habitats. We advise that this highlights the importance of DEP N to sand eels and thereby Annex 1 Sandwiche terns. We advise further consideration is given to removal of turbines from DEP N							
Document Used: [APP-190] Appendix 6.3.9.1 – Fish and Shellfish Ecology Baseline Technical Report									
F13	25, 26	Natural England note that data from otter trawl surveys in 2005 and 2008 showed that herring was the most abundant species caught. Additionally, pre and post-construction herring spawning surveys were conducted in 2009 and 2010. Both data sets support herring being a key prey resource for Annex 1 Sandwiche terns in the second part of the breeding season. However, in both instances, Natural England acknowledges the age of the data. And, while we defer to CEFAS for recommendations of further data sources to complement this data and potential requirement for pre-construction surveys, we highlight the wider ecosystem benefits in terms of management measures for Annex 1 birds from further data collection. Natural England will continue to discuss this with the Applicant and other interested parties.							
Document Used: [APP-192] Appendix 6.3.10.2 – Underwater Noise Modelling Report									
F14	27	Natural England advise further underwater noise assessment is undertaken which includes concurrent piling from SEP and DEP. However, Natural England defers to CEFAS to assess the outcomes from this additional assessment for fish species.							
Document Used: [APP-296] 9.9 Offshore Operation and Maintenance Plan (OOMP)									
F15	28, 29, 30, 31, 21	Natural England advises that because O&M activities are only mentioned and not clearly defined we do not believe that they have been assessed and therefore further information is required to undertake any HRA/MCZ assessment. Natural England advises more information is required on what is considered to be 'corrective work' and if that is permitted on the DML. The following information is required to assess the impacts from O&M activities: <ul style="list-style-type: none"> •Number of vessel transits per activity per day/month •Timing of planned maintenance work •Agree what are emergency works •Separate out inside MCZ with outside MCZ and other designated sites •Monitoring to be undertaken to inform 5 yearly review •How often will a sub-bottom profiler be used and how will the noise be taken account of •Volume of additional scour prevention around the turbines over the project lifetime •If scour/cable protection in new location – where, how much etc. •Confirm bird scarers are not noisy scarers which can disturb Annex 1 birds •More detail on the use of drones for offshore inspections 							

Point	Point Number(s) Appendix G (IR-06)	Notes from Natural England's Relevant and Written Representations SEP AND DEP Appendix G - Cromer MCZ (IR-06)	RAG Status Ref and WR Rep (1)	Consultation, actions, progression	RAG Status (2)	Consultation, actions, progression	RAG Status (3)	Consultation, actions, progression	RAG Status (4)
Broadscope theme 1: Small Scale Issues									
G1	1	Natural England doesn't agree with the Applicant's Stage One MCZ assessment in relation to the defining the magnitude of impacts because the assessment has been approached from an EA perspective rather than the conservation objectives for the site will be hindered. Please see Annex 1 of (IR-06) Natural England's Relevant and Written Representations SEP AND DEP Appendix G - Cromer MCZ for further details on Natural England's standard position.							
G2	2	Whilst Natural England acknowledges that the MCZ consists of transitional habitat types rather than features and Annex 1 habitats there are areas that are FOCI or have broadscale habitat sub features that provide a defined function with differing sensitivity in which impacts should be avoided. Unless the Applicant can suitably avoid, reduce or mitigate impacts to these features we believe that a Stage 2 assessment is required.							
G3	3	Para. 193 (APP-077) Natural England advises that calculating impacts as a percentage of the whole MCZ is misleading given the size of the site. The impacts from SEP and DEP combined are still sizeable at 0.19ha from cable protection. Natural England queries if further refinement of the assessment requires a future extent could be undertaken?							
Broadscope theme 2: Lasting Habitat Change/Loss									
G4	4	Natural England welcomes consideration of removal of cable protection at the time of decommissioning. If removal could be achieved, impacts would still last for the lifetime of the infrastructure (40 year) and potentially longer as a residual impact. Therefore, because this impact is lasting/long term and site recovery wouldn't be assured, Natural England's view is that reasonable scientific doubt would likely remain regarding the impact of the proposals on the conservation objectives for the site. Accordingly, we advise that a more precautionary approach is required when considering the generational impacts to the designated site features both alone and cumulatively and potential requirement for MREB to offset these impacts.							
Broadscope theme 3: Significance of Impact - alone									
G5	5, 6	Natural England doesn't agree with the Applicant's conclusion in Para. 268 of (APP-077) that there will be no significant risk of the activity hindering the achievement of the conservation objectives for Cromer Shoal Chalk Beds (CSCB) MCZ. Of particular concern is the area of mixed sediment within the cable corridor, which has a more diverse community. Should cable protection be placed in this location then Natural England advises the conservation objectives to restore/maintain features will not be achieved.							
Broadscope theme 4: Significance of Impact - in combination/Cumulative/Including TIERs									
G6	7, 8	Whilst the Marine and Coastal Access Act (2009) does not provide any legislative requirement for explicit consideration of in combination or cumulative impact assessment to be undertaken when assessing the impacts of licensable activities upon an MCZ, we agree with the MMD in considering that in order to fully discharge regulatory duties under section 69(1) of the MCA, in combination and cumulative effects must be considered. We acknowledge that Para. 31 of the Stage 1 MCZ Assessment (APP-077) considers TIERs to inform such an assessment. However, we advise that the 2013 guidance on TIERs has been updated in Natural England's Best Practice Guidance see Para. 8.4.4 of (IR-06).							
G7	9, 10, 11, 12	Natural England advises that due to existing/predicted impacts from post designation sustainable development the site's carrying capacity for further development is compromised. This will be reflected in the updated Conservation Advice due to be published in Spring 2023. Natural England considers the operational and maintenance phase activities for DEP (and or) SEP combined with existing Windfarm and Oil and Gas projects will result in lasting habitat change / physical disturbance which will further hinder the conservation objectives of the CSCB MCZ. The risk of, and observed, reduction in designated habitat extent which has occurred and/or is predicted to arise from the above developments has meant that the MCZ is highly likely to be taken further away from its required conservation state in the future. Unless these unanticipated significant impacts on the MCZ are addressed, Natural England advises that the overall coherence of the national site network as designated is at risk from a lasting habitat change/loss over the lifetime of the consented/being projects. We strongly advise that Applicant's potentially affecting the MCZ will need to intensify their use of the mitigation hierarchy to avoid, reduce and mitigate their impacts to a level where such effects cannot arise.							
Broadscope theme: Impacts to Chalk									
G8	13	Whilst Natural England agrees that areas of current outcropping chalk have been identified from the geophysical survey it does not agree with the Applicant's assessment that CSCB MCZ sub-site Chalk FOCI is restricted to these areas. Across much of the site there are areas of subtidal chalk lying underneath a thin veneer of sand/sediment i.e. subcropping chalk. We advise that chalk with sediment veneer should be considered as subtidal chalk feature (HDD 20) when assessing impacts. This is in accordance with our advice on fishing activities. We advise that any assessments are updated accordingly.							
G9	14	We note that the Applicant's sensitivity biotope mapping (APP-079) S.2 Appendix 2) is based on the veneer within the glacial channel rather than the sub cropping chalk, which does not align with our advice (para 27). Therefore whilst we may be able to agree with an assessment that indicates that if cables are installed as described within the veneer, chalk will not be physically impacted, this position would change should cable protection be proposed in these areas no matter the current stability of the sediments within the glacial channel.							
G10	15	Natural England advises against locating the HDD exit pits in any area of sub cropping chalk and wishes to emphasise the significance of the potential impacts will increase if this can't be secured in the DCO/DML.							
Broadscope theme 5: Mitigation									
Standard Practice Mitigation and Application to SEP/DEP									
G11	16b	Reduce number of export cables through use of HVDC system or coordinated approach with other projects – Norfolk Projects. (APP-077) Section 5.1 (Para. 47) notes the potential for progressing a single ops serving both windfarms. Natural England is most supportive of this option due to the ecological benefits both for marine and terrestrial receptors. Otherwise, we would strongly encourage commitment to an integrated transmission system being progressed with HDD ducts for both SEP and DEP being installed when the first export contracts to reduce the impacts.							
G12	16a	Missing cables around reef and other features of ecological importance. Natural England notes that this is referred to in the various SEP and DEP documents for the MCZ, but equally this is not secured as a condition on the face of the DCO/DML. Natural England would welcome this being secured as a condition. See item A4 of the DCO/DML tab.							
G13	16f	Sandwave levelling to reduce risk of free spanning cables and requirement for external cable protection. Natural England notes that there is no requirement for this mitigation measure within the MCZ, but would welcome this mitigation measure being secured.							
G14	16g	Adoption of the rebural hierarchy with external cable protection being last resort – Whilst rebural is mentioned in various documents the rebural hierarchy is not, in outline of the process for rebural should be included with the MCZ Cable Specification, Installation Plan and Monitoring Plan (APP-291).							
G15	16h	The consent undertake a cable burial risk assessment using geotechnical data to focus cable protection requirements to areas where cables are likely to be sub-optimally buried e.g. mixed sediment – to apply for a realistic worst-case scenario. Whilst, the Applicant has undertaken a cable burial study 9.7.1 and 9.7.2 (APP-292 and 293) these are only interim and are reliant on being updated post consent. Therefore, there is no indication of the areas most likely to require cable protection. We advise that more information is required at the consent stage.							
G16	16j	Requirement to install cable protection with the minimal footprint. Natural England notes that concrete/glass reinforced plastic protection covers have been included as an option to reduce the footprint of any cable protection. But this still has similar impacts to concrete mattresses. Therefore, given the Applicant's requirement to bury the cables options to secure surface laid cables have not been considered. We advise that this is considered further by the Applicant as part of the consenting phase.							
G17	16i	No use of jack-up barges along export cable routes through benthic MPAs. Natural England advises further consideration of this mitigation measure in the operation and maintenance plan 9.9 (APP-296).							
G18	16m	No cable protection in Fisheries byelaw areas to avoid hindering reef recovery, noting that cable may still go through the outfalls of these areas. Natural England notes that there has been no consideration of the potential fisheries byelaw areas and potential to hinder the positive environmental outcomes with Cromer Shoal MCZ that they are designed to achieve. We would welcome further consideration of this.							
G19	16n	Designing rock armouring to mirror the structure and function of geogenic reef. Due to the requirement to remove the cable protection at the time of decommission this is not considered a viable mitigation option for these projects.							
Broadscope theme 6: Mitigation - Sediment Deposition									
G20	17	Natural England would welcome more information on how, if required (based on the installation technique), sediment will be removed at the exit pits), stored and redistributed. And how impacts to surrounding features can be avoided/reduced. We advise that Section 8 of the (APP-077) MCZ Stage 1 assessment requires more detail and consideration of this aspect.							
Broadscope Theme 7: Secondary Scouring									
G21	18	Natural England notes that secondary scouring needs further consideration in the (APP-077) Stage 1 MCZ assessment (para. 192, 197 and 209) in relation to impacts to sediment transportation.							
Document Used: (APP-080) 5.6.3 Assessment of Sea Bed Disturbance Impacts from Unlined/Ordinance (UVOL) Clearance									
G22	19	Natural England welcomes the consideration of ORE781 (2018) when considering the potential use of UVOL demarcation catenars. However, we advise that further information is required in relation to the depth of any crater and the impacts this may have on any subcropping chalk, peat and clay. In particular if chalk, peat/clay or mixed sediment are impacted features likely to be destroyed as part of any explosion. Limited evidence is presented to demonstrate that the structure and function will fully recover. In addition, we advise that impacts from UVOL demarcation are considered in combination with bayside projects. There.							
Document Used: (APP-081) 6.4 Appendix 4 - Assessment of Potential Impacts on Cromer Shoal Chalk Beds Marine Conservation Zone Features from Planting of Native Oyster Beds									
G23	20, 21, 22, 23	Natural England advises that the area behind the MREB option is sound i.e. the restoration of mixed sediment/reef softness communities in a new location. Natural England highlights the importance of the existing mixed sediment within the Cromer Shoal MCZ. The Cromer Shoal MCZ mixed sediment in this location has several sub features to that of the generic habitat type and there is no current requirement to restore/enhance these habitats. Natural England therefore advises against the placement of cluth and restoration of an Oyster bed in the middle of a mixed sediment area. For this to be considered as additionally we advise that it would be better to extend/enhance the area of the mixed sediment on the boundary with impoverished coarse sediment e.g. in the centre of the 'L' shaped mixed sediment area or north/south of the site rectangle.							
Document Used: (APP-082) 7.3 Appendix 3 - In Principle Cromer Shoal Chalk Beds (CSCB) Marine Conservation Zone (MCZ) Measures of Equivalent Environmental Benefit (MEEB) in Part B (APP-086) 5.8 Strategic and Collaborative Approaches to Compensation and Measures of Equivalent Environmental Benefit									
G24	24, 25	Natural England advises that regardless of the potential project progression scenarios the magnitude of oyster bed is dependent on ecological functionality and therefore will not change. Natural England recognises the time required for ecological functionality to occur and therefore would advise the implementation of oyster restoration prior to the cable installation but reflecting that it may not be fully delivering at time of cable installation. (Para. 93)							
G25	26	Natural England advises that removal of anthropogenic marine debris will not provide the necessary compensation measure alone, but could form part of a package with something much more substantive or a positive Net Gain option. As with our advice to the Secretary of State (dated 20 January 2022) on Horsehoe Project There, it is a challenging to demonstrate that this option will offset habitat loss.							
G26	28	Natural England recommends working with local fishermen to source the cluth as has been done on previous projects (Section 8.4.3.1 of (APP-083)) and would welcome any commitment that could be made to this end.							
Document Used: (APP-181) 8.6 Environmental Statement Appendix 6.3 - Sedimentary Processes in the Cromer Shoal Chalk Beds MCZ & (APP-183) 8.6.4 Environmental Statement Appendix 6.4 - Sheringham Shoal Nearshore Cable Route - BGS Shallow Geological Assessment									
G27	30	Natural England notes the age of the data presented in APP-182 and advises that consideration of more recent data included within other documents gives a more holistic characterisation of the site. Of particular note is the use of these data as evidence of the stable nature of the sediment along the glacial channel.							
G28	31, 32	Natural England notes that, in some places, sediment veneer is likely to be less than 5m, with 0.3 - 1.2m stated at Section 5.1.2 (APP-182). Natural England advises that impacts to chalk should be avoided either through installation or further external cable protection. As per comments G9 and G10, Natural England advises that sediment veneers over chalk to constitute a subtidal chalk feature (HDD 20). Natural England advises that impacts to peat and clay should also be avoided from cable installation and potential cable protection.							
Document Used: (APP-281) 8.1 Cable Statement									
G29	33	Natural England would welcome the adoption of an integrated system and therefore concurrent development. If the projects are taken forward separately then we would strongly advise the Applicant to commit to installing the cable ducts for both projects when the first project is installed as per several other local major development projects. Natural England advises that should this approach be adopted then many of the transmission asset impacts will be significantly reduced.							
Document Used: (APP-291) 9 - Outline Cromer Shoal Chalk Beds (CSCB) Marine Conservation Zone (MCZ) Cable Specification, Installation and Monitoring Plan (CSMP)									
G30	34	Natural England advises that prior to construction, sign off of this document should be required in consultation with the relevant SHCA.							
G31	35	Natural England advises that where there is shallow veneer there should be a commitment to undertake ongoing monitoring and management.							
G32	36	Natural England notes that the information included in Fig. 2 and supporting text (1.3.1 para.12) doesn't reflect the more detailed information in 6.3.8.5 (APP-181) Fig. 14. Natural England advises the CSMP is amended with the more detailed information provided in Environmental Statement (AP-188) even the purpose of this document.							
G33	37	Natural England highlights that the cable installation plan will need to take into consideration potential impacts to other designated sites. For example, potential disturbance/displacement impacts to Annex 1 Red Throated Diver and possible implications of mitigating impacts to the Greater Wash SPA.							
G34	38	Natural England highlights the need for the implementation of adaptive management measures should monitoring demonstrate the impacts are greater than predicted or unforeseen. Natural England recommends that this is incorporated into the CSMP. See item A21 of the DCO/DML tab.							
G35	39	Natural England advises that monitoring will be required to inform the as yet to be agreed 5 yearly review of the Operations and Maintenance plan. Natural England recommends this monitoring requirement is acknowledged in the CSMP.							
G36	40	Natural England advises that any increase in the footprint of cable protection within the MCZ during the operational phase of the project will require a separate marine licence due to the potential impacts to designated site features which may have changed over time.							
Document Used: (APP-291) 9.7.2 Appendix 9.7.2 - Export Cable Burial Risk Assessment									
G37	41	Natural England advises that standard practice to inform the cable burial risk assessment is to undertake geotechnical investigations prior to submission. However, for these projects we advise that the geotechnical and cable installation data from Dudgeon O&W is the best available evidence available. We would expect additional geotechnical data to be collected prior to cable installation to inform the necessary regulatory sign off in consultation with Natural England and this should be secured in the DCO/DML or paired plan.							

Point/Paragraph Number(s) from Appendix H (NR-063)	Point/Paragraph Number(s) from Appendix H (NR-063)	Issue Description	Issue Status	Resolution/Action	Issue Status	Resolution/Action	Issue Status	Resolution/Action
Broadcote Theme 1: 'Statutory Purpose of the Norfolk Coast Area of Outstanding Natural Beauty (NCAONB)'								
H1	11	Natural England agrees with the conclusion drawn in Para. 503 of 4.1.25. (APP 111) that the effects on the statutory purpose of the NCAONB will be adverse and agrees that the effects of DEP on the statutory purpose of the NCAONB will be of a lesser extent compared to those from SEP. However, Natural England disagrees with the impact significance concluded within the 4.1.25. SVA (APP-111) and maintains that the effects are significant and adverse.						
H2	12, 13, 16f	The difference between the Applicant's judgement of impact significance on the NCAONB and Natural England's judgement of impact significance has increased since the assessment within the Preliminary Environmental Information Report (PEIR), without any obvious justification from the Applicant to the change in the assessment. Natural England welcomes the adjustments made by the Applicant to the indicative layouts of the SEP and DEP array. However, we have not seen an appraisal of these changes within the SVA, and do not agree that this design change is enough to mitigate the impacts to sufficiently decrease the impact significance of SEP and DEP on the NCAONB.						
H3	14, 15	Natural England maintains that the overall potential impact from SEP and DEP on the statutory purpose of the NCAONB will be major, moderate, adverse, unacceptable, and significant in EA terms. Natural England believes that SEP and DEP will harm the natural beauty of the NCAONB because: • Heights of turbines mean they will be highly apparent from the NCAONB and degrade the wilderness special quality for which NCAONB was designated. • Contrast in apparent height between turbines proposed for SEP and DEP and those at existing Offshore Wind Farms (OWF) will significantly and adversely degrade the quality of views from the NCAONB. The contrast will create a visually cluttered seascape when viewed from the NCAONB and NHC. • Presented visualisations (APP 135 to APP 132) show a clear curtaining effect when SEP and DEP are viewed from the NCAONB created by the joining together of the proposed projects with existing OWF. • The perception of wildness, remoteness, and tranquility (QNB 6) that users of the NCAONB experience will be degraded. • Existing wind farms have already compromised the statutory purpose of the NCAONB. The further advice that it would be impossible for SEP and DEP to not prevent a further and significant impact to that which has already occurred. However we believe that the SVA conclusions do not reflect this.						
Broadcote Theme 2: 'Conclusion of the SVA: Assessing the effects of OWF on the statutory purpose of the designated landscape'								
H4	Point 2, 16a, 16b	Para. 76 of the SEP and DEP SVA (APP-111) implies that the Landscape Institute's guidance (Para. 3.35, GLV16A) provides a threshold of impact significance in EA terms, and that this threshold sits above 'moderate significance'. However, as stated in Para. 3.32 of the GLV16A this significance rating has no meaning in relation to the EA Regulations. There is no single approach to assessing the effects of OWFs on the statutory purpose of designated landscapes, and the GLV16A does not provide a lead on this subject.						
H5	Point 2, 16c, 16d, 16e	Natural England agrees with Paras. 125 and 129 (APP-111). We would like to emphasise that the stretch of coastline belonging to the NCAONB is ca. 65km long and contains many of the features and special qualities which merited the area's designation as an AONB. Whilst the conclusion made in Para. 503 of APP-111 that SEP and DEP would not be visible from many areas of the AONB is correct, it is also correct that extensive views of SEP and DEP will be available from the majority of the NCAONB coastline. This conclusion could suggest that impacts on the seascape, landscape and visual resources will be minimal and could be misleading to a non-landscape specialist trying to understand the assessment.						
Broadcote Theme 3: 'Requirement for a Cumulative Impact Assessment'								
H6	17, 18a, 18b, 18c, 18d	We advise that the full impact of SEP and DEP on the NCAONB cannot be understood without conducting a Cumulative Impact Assessment (CIA). This CIA should answer the question to "what is the additional harm to the AONB from the turbines proposed by SEP and DEP" and include projects for which consent has been sought or granted, as well as those already in existence. This is a separate assessment to the in-combination assessment of the SEP and DEP projects alone and together, already contained within the SVA. As stated in an expert topic group (ETG) held on 1 July 2021, the CIA is required to fully consider impacts from SEP and DEP on the statutory purpose of the NCAONB.						
H7	18f	The visualisations appended to ES chapter 25 (APP-135 to APP-132) should be used to develop conclusions as the compounding of visual impact effects will affect the statutory purpose of the NCAONB. We advise that the key policy test is whether harm to the seascape setting of the NCAONB and the consequences that this has on the already compromised statutory purpose of the NCAONB.						
H8	18g	Applicant agreed to supply text at the ETG meeting on 2nd February 2022 detailing a comparison between SEP and DEP and other consented arrays visible from the NCAONB. We note that this document is not part of ES. We advise that such a document should be included as part of the determination process to assist the EA and the decision maker.						
Broadcote Theme 4: 'Requirement for a Cumulative Impact Assessment'								
H9	Point 4	The overarching test for EA (Para. 3.9.9) confirms that decisions to consent SEP and DEP should have regard to the specific statutory purposes of nationally designated landscapes. Natural England advises that SEP and DEP will adversely affect special quality 6 of the NCAONB: sense of remoteness, tranquillity, and wildness (QNB 6).						
H10	19b, 19c	Natural England disagrees with the assessment of QNB 6 in Para. 509 (APP-111). Adverse effects of existing OWFs on QNB 6 are already reported within the NCAONB Management plan. SEP and DEP will add larger turbines into the seascape setting of the NCAONB, which will cause a further, and significant, 'offshore wind farm' effect. The statement 'offshore wind farms are, however, already visible from the AONB' (Paras. 522 and 531 of the SEP and DEP SVA (APP-111)) does not justify the further loss of a sense of remoteness, tranquillity, and wildness from SEP and DEP. The assessment of QNB 6 does not specify the user group impacted.						
H11	19d	Natural England is unclear about what 'Dark Skies' would be affected to a degree' means and how much 'skyglow' SEP and DEP will create (Para. 529 (APP-111)). Further to this, there is a conflict between a statement in Tab. 2 of Document 9.25 (APP-111) which states that SEP and DEP 'would not create any additional skyglow' and Para. 529 (APP-111) which states that 'Dark Skies would be affected to a degree'. We note that the Light Pollution Planning Practice Guidance (Para. 203) states that 'lighting near or above the horizon is usually to be avoided to reduce glare and sky glow', and we note that the SEP and DEP will rise on the horizon when viewed from the NCAONB. Natural England advises that the Applicant gives further consideration to this.						
H12	19e	Natural England is concerned that the three night time visualisations indicate a wide spread of light across the horizon with no clear breaks. For instance in Figure 25.21 (APP-138), Figure 25.24 (APP-141) and Figure 25.26 (APP-143) where the pattern of lights appears particularly cluttered. We agree with some parts of Para. 25 of the SVA (APP-111) that the spread and increased height of lighting 'would be more noticeable', and that the spread of lighting across the view would be a visual issue. However, there is no indication of 'if and how' this can be addressed.						
H13	19f	Natural England does not understand the statement 'only where it has been judged that there would be a difference between day-time and night-time views has this been noted within the assessment' (Para. 352 of the SEP and DEP SVA (APP-111)). We advise that day and night views are fundamentally different, not least because visual perception at night is distorted by lights and illuminations rather than distance, with the perception of later being radically altered at night. Natural England is therefore unable to agree with justification used by the Applicant to draw their conclusions.						
Broadcote Theme 5: 'Comments on Decision 9.26 (APP-311) impacts on the QNB of NCAONB'								
H14	20	Natural England advises that the NCAONB's Qualities of Natural Beauty (QNBs) 2, 3 and 6 (as described within the NCAONB Management Plan) will not be conserved and enhanced by SEP and DEP and that it will be possible to secure sufficient mitigation to counter this effect.						
H15	Table 1 QNBs	Strong and distinctive links between land and sea: Natural England's advice is that SEP and DEP should be judged on the additional impact it would have upon the statutory purpose of the NCAONB. Natural England believes that the Sheringham Shoal array has already compromised the statutory purpose of the NCAONB. The addition of SEP and DEP into the seascape of the NCAONB can only further degrade the quality of the setting and by extension the NCAONB. Natural England queries how the addition of much larger turbines, with a greater spread across the seascape, and with additional lighting would allow the assessment of QNB 2 to remain Amber.						
H16	Table 1 QNBs	Diversity and integrity of landscape, seascape and settlement character: Natural England disagrees with the applicant's RAG status of Amber. It appears RAG status should be Red. See broadcote theme note 8 (Points 18 to 19f) for rationale.						
H17	Table 1 QNBs	Sense of remoteness, tranquillity and wildness: Natural England disagrees with the applicant's RAG status of Amber. It suggests the RAG sense of remoteness, tranquillity and wildness should be Red. See section 9 (Points 18 to 19f) for rationale.						
Broadcote Theme 6: 'Design Objective 11 (Protective and Visual Character of the Coast) landscape'								
H18	Point 6	Natural England supports in principle the Design Objective 11 although we are uncertain as to how the design of SEP and DEP meets this objective.						
H19	21a	Natural England acknowledges the changes made to the layout of the indicative turbine locations since the consultation on the Section 42 Consultation. When we welcome these changes we still advise that significant adverse effects remain.						
H20	21b	Natural England disagrees with the statement that the NCAONB 'will not be directly impacted by the proposed offshore array' (Para. 3.3.5 of the 2.26 Offshore Design Statement (APP-312)) as no evidence has been provided to support this statement. We would also like to clarify the SEP and DEP would be visible to the horizon as well as between the shoreline low water mark and 2km from the shoreline as the montages for the inland viewpoints located within the NCAONB (well beyond 1km from the shoreline) clearly show the turbines of SEP and DEP.						
H21	21f	From a seascape perspective, Natural England supports, in principle, the layout objectives described in section 6.3.4 of the Design Statement (Document 9.26 (APP-312)). Specific comments addressed in H26 to H29.						
H22	Table 2 Layout objective 1	Produce visually balanced and coherent layout of turbines when seen from key viewpoints, demonstrating a good rhythm, spacing. We support this objective. It would be useful for the Applicant to provide a commentary on why the indicative turbine locations have changed, and whether these changes can be formalised within the design as part of the consenting phase.						
H23	Table 2 Layout objective 2	Achieve an appropriate scale in terms of distribution of turbines in relation to the coastal topography. We support this objective, although note that the difference in height between the existing arrays (to blade tip height: 132m for Sheringham Shoal, 187m for Dudgeon and 260-320m for SEP and DEP) will in practice make this very difficult to achieve. Therefore, Natural England is unclear as to how this objective will be achieved.						
H24	Table 2 Layout objective 3	Achieve simple visual relationships with skyline, avoiding variable spacing and overlapping of turbines within an array or significant clutter. We support this objective, although note that this will be a difficult objective to achieve due to the extensive length of coastline from which the SEP and DEP will be visible (upwards of 65km). Natural England is unclear where the SEP and DEP SVA (APP-111) reports on this objective with respect to the visualisations provided within the ES, or whether the Applicant considers this objective met, and if so, how?						
H25	Table 2 Layout objective 4	Achieve satisfactory visual relationships (balanced, ordered, coherent and clearly lit) with existing arrays. We support this objective, although note that the difference in height between the existing arrays and those of SEP and DEP will in practice make this very difficult to achieve. Natural England is unclear where the SEP and DEP SVA (APP-111) reports on this objective with respect to the visualisations provided within the ES, or whether the Applicant considers this objective met, and if so, how?						
Broadcote Theme 7: 'Visualisations showing how 53 265m high turbines may appear in views from the NCAONB should be used to inform the EA process' Worst Case Scenario Cupola'								
H26	23, 24a	Natural England's advice that the impact to the statutory purpose of the NCAONB should WC3 be the option carried forwards, needs to be understood and is likely to be on the NCAONB assessed. Further, a scenario with turbines of heights between 254 to 320m, and a number between 30 and 53, may also constitute an additional Worst Case Scenario.						
H27	24c	However, we advise that visualisations of Worst Case Scenario 2 should inform the decision making process. A greater number of smaller turbines, up to 53 turbines of 265m, would still result in a significant adverse effect on the statutory purpose of the NCAONB.						
H28	24c	Natural England notes that the proposed substitution(s) will be constructed to a height of 50m above HAT, at an unspecified distance from the coast. Natural England advises that the minimum distance from the coast is provided within the project's core information that it is likely effects on the NCAONB can be appropriately screened within the EA. Further, it is unclear to Natural England whether the substitution within the SEP project area would be larger or higher (than 50m) in the development scenario where it is the only substitution to screen both the SEP and DEP offshore wind farms.						
Broadcote Theme 8: 'Sensitivity of Landscape Character Types'								
H29	Table 4	Natural England's advice on the sensitivity of the Landscape Character Types within the coastal areas of the NCAONB sits in agreement with the North Norfolk Landscape Sensitivity Assessment 2021, and in disagreement with the judgements made within the ES. Natural England's advice on the impact significance of SEP and DEP on these landscape types has not changed (Table 4 (R-063)) and remains 'Highly Sensitive' (significant in EA terms and advice).						
H30	25b	Natural England advises that the susceptibility of the character of Drained Coastal Marshes, Coastal Shelf, and Open Coastal Marsh is 'high' for the reasons outlined within Table 5 of App. H (R-063). We advise that the assessment should be updated to reflect this.						
H31	25b	We remain in disagreement with the SEP and DEP SVA (APP-111) judgements regarding the magnitude of effects from SEP and DEP on Protected Coastal Marshes, Coastal Shelf, and Open Coastal Marsh.						
H32	25b	Regarding the sensitivity of Drained Coastal Marshes, Coastal Shelf, and Open Coastal Marsh to SEP and DEP, Natural England is in agreement with the landscape sensitivity judgements within Table 5.1 of the North Norfolk Landscape Sensitivity Assessment 2021. We give the EA's attention to the fact that the maximum turbine heights of SEP and DEP (265m) is over twice the turbine height used to inform the judgements contained within the North Norfolk Landscape Sensitivity Assessment 2021.						
H33	25b	We note inconsistencies in judgements on the scales of effect from SEP and DEP on landscape character. The SVA states that effects on landscape character along the Norfolk coastline, from where SEP and DEP will be visible, would be 'at most, small scale effects' (Para. 303 SEP and DEP SVA (APP-111)). This statement contrasts analysis shown within Table 25-16 (SEP and DEP SVA (APP-111)), which report up to medium scales of effect, a judgement which Natural England also disagrees with. We advise that further clarity is needed on this within the assessments.						
Broadcote Theme 9: 'Scale of effects on SEP and DEP on the statutory purpose of the NCAONB from the agreed representative viewpoints'								
H34	Point 9, 26a, 26b	Natural England remains in disagreement with the Applicant on the scale of effects from SEP and DEP on the statutory purpose of the NCAONB from the agreed representative viewpoints.						
Broadcote Theme 10: 'Visualisation and Assessment'								
H35	28	A vital mitigation measure during the construction phase, should both projects be approved, is for the anshore cabling to be installed simultaneously and not sequentially. If sequential installation is progressed then the first project must install the infrastructure for both projects. The importance of the AONB justifies the most effective mitigation being applied as is consistent with the approach agreed for East Angles offshore windfarms.						
H36	29	Natural England advises that close attention is made to the advice of the NCAONB Partnership and relevant local authorities. These local authorities have knowledge and understanding of the immediate landscape to which the cables connect, and its value.						

Item	Field Number/ Map Reference	Notes from Natural England's Review and Written Representations 2016-2017 (Appendix 1 - Technical Listing 2016-2017)	UK Sites for EIA	Consideration, actions, programme	UK Sites for EIA	Consideration, actions, programme	UK Sites for EIA
11	5	The methods for some existing features will be confirmed within the Creative Licence. Natural England will be consulted on, and be responsible for, review reports for the following emerging measures to be considered concerning the proposed construction of a new or improved feature: (i) any new or improved features to be considered concerning the proposed construction of a new or improved feature: (ii) any new or improved features to be considered concerning the proposed construction of a new or improved feature: (iii) any new or improved features to be considered concerning the proposed construction of a new or improved feature.					
12	4, 10, 11, 18	Natural England advised that in order to have confidence in mitigation measures further considerations are required within a CDMP of: • A statement of proposed mitigation measures, including a risk assessment and monitoring plan. • Appropriate measures for all identified features to be included in the CDMP. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance.					
13	1, 2, 3	Review to future proof the project and enable long term environmental gains. Natural England highlights the importance of the Applicant considering an enhanced level of mitigation measures with the EIA mitigation levels, and longer periods than: • Pro construction habitat surveys to identify if any changes to the draft mitigation levels is required. • Reasonable Resilience Measures (RRM), such as a range of other measures and surveys. • Post monitoring surveys followed up by changes to mitigation where mitigation is proven to be ineffective.					
14	6	Natural England advised pre construction surveys should ensure that a full assessment of the impact can be made and the loss of breeding habitat for birds and other species is avoided. Further detail on pre construction mitigation is provided in the CDMP and will be included in the CDMP.					
15	7	The order is within 250 metres of a watercourse (Droghda Wood and Colin Wood). To ensure all impacts have been fully assessed a survey of the watercourse should be undertaken within the CDMP and will be included in the CDMP.					
16	8, 27, 28, 44	Further mitigation measures should be put in place to reduce the impact of protected bird species during the breeding season. We advise the Applicant to consider: • A statement of proposed mitigation measures, including a risk assessment and monitoring plan. • Appropriate measures for all identified features to be included in the CDMP. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance.					
17	9	Additional mitigation and the River measures are required during the period of works including the construction. These also are required in order to maintain the CDMP and ensure that the CDMP is updated with the most up to date information. The CDMP should be updated with the most up to date information.					
18	11	Mitigation between the CDMP and the River measures are required during the period of works including the construction. These also are required in order to maintain the CDMP and ensure that the CDMP is updated with the most up to date information. The CDMP should be updated with the most up to date information.					
19	1, 2	Natural England advised that a full assessment of the impact can be made and the loss of breeding habitat for birds and other species is avoided. Further detail on pre construction mitigation is provided in the CDMP and will be included in the CDMP.					
20	2, 3, 5, 9	Additional mitigation measures should be put in place to reduce the impact of protected bird species during the breeding season. We advise the Applicant to consider: • A statement of proposed mitigation measures, including a risk assessment and monitoring plan. • Appropriate measures for all identified features to be included in the CDMP. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance.					
21	10	Natural England advised that a full assessment of the impact can be made and the loss of breeding habitat for birds and other species is avoided. Further detail on pre construction mitigation is provided in the CDMP and will be included in the CDMP.					
22	12	Additional mitigation measures should be put in place to reduce the impact of protected bird species during the breeding season. We advise the Applicant to consider: • A statement of proposed mitigation measures, including a risk assessment and monitoring plan. • Appropriate measures for all identified features to be included in the CDMP. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance.					
23	1, 2	Natural England advised that a full assessment of the impact can be made and the loss of breeding habitat for birds and other species is avoided. Further detail on pre construction mitigation is provided in the CDMP and will be included in the CDMP.					
24	2, 3, 5, 9	Additional mitigation measures should be put in place to reduce the impact of protected bird species during the breeding season. We advise the Applicant to consider: • A statement of proposed mitigation measures, including a risk assessment and monitoring plan. • Appropriate measures for all identified features to be included in the CDMP. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance.					
25	10	Natural England advised that a full assessment of the impact can be made and the loss of breeding habitat for birds and other species is avoided. Further detail on pre construction mitigation is provided in the CDMP and will be included in the CDMP.					
26	12	Additional mitigation measures should be put in place to reduce the impact of protected bird species during the breeding season. We advise the Applicant to consider: • A statement of proposed mitigation measures, including a risk assessment and monitoring plan. • Appropriate measures for all identified features to be included in the CDMP. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance.					
27	1, 2	Natural England advised that a full assessment of the impact can be made and the loss of breeding habitat for birds and other species is avoided. Further detail on pre construction mitigation is provided in the CDMP and will be included in the CDMP.					
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29	10	Natural England advised that a full assessment of the impact can be made and the loss of breeding habitat for birds and other species is avoided. Further detail on pre construction mitigation is provided in the CDMP and will be included in the CDMP.					
30	12	Additional mitigation measures should be put in place to reduce the impact of protected bird species during the breeding season. We advise the Applicant to consider: • A statement of proposed mitigation measures, including a risk assessment and monitoring plan. • Appropriate measures for all identified features to be included in the CDMP. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance. • The construction of a CDMP should be undertaken in accordance with the CDMP Guidance.					