THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Natural England's Risk and Issues Log - Deadine 2 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

7th March 2023

******D2 UPDATE - REMOVE BEFORE SENDING**** - Red Tabs = No amendments made at D2, Green Tabs = Ammendments made at D2. Please change the tab colour if you make amendments within tab for D2 response.**

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

Purple Note for Examiners and/or competent authority. May relate to DCO/DML	
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 may require the following: 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.	
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 may be resolved through: 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.	
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 this particular project 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 a 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.	
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.	

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.		Resolved by applicant's updates to the DCO					
2	Natural England advises the text should be amended to include consultation of the relevant Statutory Nature Conservation Body (SNCB) in certain conditions.		No change at Deadline 2.					
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).		No change at Deadline 2.					
4	There is no mention within Schedule 10 Part 2 Condition 13 of a requirement to microsite cables around identified features of conservation importance.		Resolved by applicant's updates to the DCO					
5	Natural England has concerns about the deployment of scour and cable protection across the entire lifetime of the project		No change at Deadline 2.					
6	Natural England does not consider four months an appropriate timeframe to approve all plans and documentation within the deemed Marine Licences.		No change at Deadline 2.					
7	Condition 6 does not secure a time requirement for the delivery of the compensation.		No change at Deadline 2.					
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.		No change at Deadline 2.					
9	Annex D condition 22 - Natural England considers that it is important that measures of benefit are secured prior to works commencing.		No change at Deadline 2.					
Appendix B - Offshore Ornithology								
10	Presentation of selected Collision Risk Mitigation parameters.		No change at Deadline 2.					
11	Red-throated diver disturbance/displacement Impacts.		No change at Deadline 2.					
12	Currently adopted approach to assessing displacement during construction.		No change at Deadline 2.					
13	Biologically Defined Minimum Population Size Apportioning for Kittiwake and Gannet in the non-breeding Season.		No change at Deadline 2.					
14	Updating Cumulative and In Combination totals to reflect recently examined projects.		No change at Deadline 2.					
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.		No change at Deadline 2.					
Appendix C - Offshore Ornithology Compensation								
16	Sandwich Tern - Proposal for Loch 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.		Please Refer to Natural England's response Apendix C1 at Deadline 2 where we set out our further queries.					
17	Kittiwake compensation requires proposal requires significant further development.		Please refer to Natural England's response Appendix C1 at Deadline 2. Natural England does believe there may be potential to provde appropriate compensation through the Gateshead Modification tower. However this is subject to the Applicant providing further requested information.					
18	Compensatory measures for Guillemot and Razorbill are relatively undeveloped and require further detail.		No change at Deadline 2.					
Appendix D - Marine Mammals								
19	Currently presented mitigation measures for disturbance within the Marine Mammal Mitigation Protocol (MMMP) and the Site Integrity Plan (SIP).		No change at Deadline 2.					
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.		No change at Deadline 2.					
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/dML as to protect marine mammals throughout the various stages of the development.		No change at Deadline 2.					
22	An updated assessment of in-combination seasonal disturbance to the Southern North Sea SAC to reflect all noisy activity is required.		No change at Deadline 2.					
23	Further information is needed to demonstrate that an AEoI will not occur on the grey seal feature of the Humber Estuary SAC.		No change at Deadline 2.					
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.		The Applicant has provided further information in Marine Processes Technical Note [REP1-059], however some infromation remains outstanding.					
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 ZoI 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 Dowsing, 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.		No change at Deadline 2.					
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 scenario.		No change at Deadline 2.					
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.		Please refer to the Deadline 2 cover letter, we continue to defer to the advice of Cefas and the MMO regarding the sufficiency of the sediment sampling.					
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 I stony reef as a precautionary measure. This commitment needs to be secured through condition within the DCO/DML.		No change at Deadline 2.					
29	Natural England seeks clarification as to status of the UK BAP 'Peat and clay exposures with piddocks' at Transect SS_21A.		No change at Deadline 2.					
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.		No change at Deadline 2.					
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.		No change at Deadline 2.					
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.		No change at Deadline 2.					
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.		No change at Deadline 2.					
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.		No change at Deadline 2.					
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 additionality, 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.		Natural England supports the changes to address our concerns in relation to the location of the proposed Oyster Bed.					

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
36	Natural England highlights the need for the implementation of adaptive management measures should monitoring demonstrate the impacts are greater than predicted or unforeseen.		No change at Deadline 2.					
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.		No change at Deadline 2.					
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.		No change at Deadline 2.					
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 that those of the SEP scheme, they will nevertheless be transformative for those portions of the coastline effected.		No change at Deadline 2.					
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.		No change at Deadline 2.					
Appendix H - 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.		No change at Deadline 2.					
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.		No change at Deadline 2.					
43	Natural England advises that close attention is made to the advice of the NCAONB partnership and the relevant local authorities.		No change at Deadline 2.					
Appendix I - 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.		Please see Natural England's advice at Deadline 2 Appendix I2					
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.		No change at Deadline 2.					
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.		No change at Deadline 2.					

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 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-024] 3.1 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.		No change at deadline 2.					
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. • 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.		Natural England notes the proposed changes which address this issue.					
A3	4, 5, 11	Natural England advises the text should be amended to include consultation of the relevant SNCB in each of these conditions. • 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.		No change at deadline 2.					
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.		Natural England notes and accepts the updated drafting of DCO revision C.					
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.		No change at deadline 2.					
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.		Natural England notes the change to six months prior to construction which partially addresses our concern. However, our request for no submission prior to 9 months before start of construction stands.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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?		Changes to the conditions have been proposed. These changes partially address the concerns but concerns remain regarding the delivery of compensation by third parties as per our comments in our Deadline 2 covering letter.					
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.		No change at deadline 2.					
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)		Updated wording to be submitted by the applicant at Deadline 2 NE to review and comment by deadline 3					

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 Rel and WR Rep D1	Consultation, actions, progression	RAG Status D2	Consultation, actions, progression	RAG Status D3	Consultation, actions, progression	RAG Status D4
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.		Updated wording to be submitted by the applicant at Deadline 2 NE to review and comment by deadline 3					
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.		Updated wording to be submitted by the applicant at Deadline 2 NE to review and comment by deadline 3					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
A23	N/A	Additional Comment: Subject to Natural England's final position: • Ornithological monitoring of species/impacts subject to compensation (kittiwake, Sandwich tern and potentially guillemots, 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 height, survival rates etc.		No change at deadline 2.					
Additional Comments Since Relevant Representation									
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. I 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 I, Point I13.		No change at deadline 2.					
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 I - Terrestrial Ecology Point I10.		No change at deadline 2.					

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 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-097] Chapter 11 Offshore Ornithology. PINS Doc Number 6.1.11. Doc RefC282-RH-Z-GA-00031									
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 (central value only) from the Natural England's interim guidance note) are presented for Sandwich tern, gannet, kittiwake, great black backed gull, lesser black backed gull (LBBG) and little gull. See Section 2 and Appendix B1 of [RR-063] Relevant Representation of Natural England.		No change at deadline 2.					
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, 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 Hornsea 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 Filey 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 HRA, 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 (AEOI) 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 AEOI in combination for the LBBG 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.		No change at deadline 2.					
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).		No change at deadline 2.					
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 (or adult types in the case of kittiwakes) 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).		No change at deadline 2.					
B5	Summary Section 6	Flamborough and Filey 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 HRA.		No change at deadline 2.					
B6	Summary Section 10	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 DCO 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.		No change at deadline 2.					
B7	Summary Section 11	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 as the recent Hornsea Project Four examination has resulted in Natural England advising AEoI 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.		No change at deadline 2.					
Document Used: [APP-097] Chapter 11 Offshore Ornithology. PINS Doc Number 6.1.11. Doc RefC282-RH-Z-GA-00031									
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.		No change at deadline 2.					
B9	2	Natural England recommends the Applicant reviews our guidance (see [RR-063] Appendix B2) on exisiting 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, LBBG), puffin, colonies: Flamborough & Filey 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.		No change at deadline 2.					
B10	4	The current approach to assessing displacement during construction uses data from Fleissbech 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).		No change at deadline 2.					
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.		No change at deadline 2.					
B12	6	Regarding the assessment of impacts on RTD: please note the latest Statutory Nature Conservation Body (SNCB) advice. https://hub.jncc.gov.uk/assets/9aecb87c-80c5-4cfb-9102-39f0228dcc9a		No change at deadline 2.					
B13	8	Natural England advises that Rampion 2 PEIR was published in Aug 2021 [redacted]). This should be included in totals where appropriate. We acknowledge that the Applicant plans to update the assessment with up-to-date Hornsea Project 4 totals. We highlight that a number of OWF PEIRs are anticipated in early 2023, and we advise data from relevant projects should be used to update cumulative/in-combination assessments as required.		No change at deadline 2.					
Document Used: [APP059] 5.4 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 O&M vessels may transit through the Greater Wash SPA on route to the array. Natural England advises the Applicant considers impacts on O&M vessels from DEP as well as Sheringham Extension Project (SEP), or clarify that O&M vessels from Great Yarmouth will not enter the SPA.		No change at deadline 2.					
B15	10, 12	As a minimum, the best practice protocol for all vessel movements through the SPA should be adhered to (see EA1N/EA2 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.		No change at deadline 2.					
B16	11	We note that the gradient approach to RTD displacement, as used in EA1N and EA2 has been presented within the RIAA. 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.		No change at deadline 2.					

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 Rel and WR Rep D1	Consultation, actions, progression	RAG Status D2	Consultation, actions, progression	RAG Status D3	Consultation, actions, progression	RAG status D4
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. 1079 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 e.g. array design should be considered.		No change at deadline 2.					
B18	14	Data Natural England holds from the NNR 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 Scolt 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.		No change at deadline 2.					
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 presented 98% figures with a 50% Macro Avoidance.		No change at deadline 2.					
B20	16	Please note Natural England recommends the use of the published flight speed (Fijn and Gyimesi (2018)) of 10.3 m/s), as opposed to the selected flight speed of Fijn 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% CI/SDs of key parameters).		No change at deadline 2.					
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 it would presumably be scenario A but with Dudgeon reflecting the as-built?).		No change at deadline 2.					
B22	19	SEP and DEP are both within mean max foraging range for Lesser Black Backed Gull (LBBG), 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 Boreas/Vanguard and EA1N/EA2 projects to see what data was marshalled regarding non-SPA colonies in Suffolk (e.g. Lowestoft), as some of those may fall within the foraging range. Natural England recommends developing an evidence-based approach to apportioning LBBG mortality to Alde-Ore SPA in the breeding season, considering all colonies within the mean max foraging range.		No change at deadline 2.					
B23	20	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%*93.4%. Please provide corrected figures.		No change at deadline 2.					
B24	21	HPAI appears to have spread rapidly within parts of the gannetry 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. 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).		No change at deadline 2.					
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.		No change at deadline 2.					

Point	Point Number(s) from Appendix C [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix C - Offshore Ornithology Compensation [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-069] 5.5.2 Appendix 2 - Sandwich Tern Compensation Document									
C1	7, 11, 19	Natural England reiterate that we consider it very unlikely that sandwich terns would colonise a pontoon structure of a similar design to that frequently deployed for common tern. Natural England are of the opinion that the provision of a pontoon for breeding Sandwich tern is a high-risk option due to a lack of any species-specific evidence to suggest that colonisation is likely. To have any confidence in the suitability of a pontoon for breeding sandwich tern, Natural England will need to review detailed designs, which should be informed by species-specific preferences regarding breeding site characteristics. Preferably, these designs would be tested at a location where sandwich terns currently breed at sub-optimal locations (e.g., due to disturbance or predation pressures) or are habitat limited. On the evidence and information presented, Natural England advise that the Applicant commit to the preferred option of habitat creation by provision of a lagoon with nesting islands. Contingency should be provided through alternative locations rather than potentially suboptimal alternatives with high levels of uncertainty regarding colonisation potential. If a pontoon option is to be progressed, it is suggested that significant development of the design should be considered to increase the chance of colonisation by Sandwich tern. For example, creating a more diverse habitat by grading the surface, increasing the height above the water level, or planting vegetation might all be beneficial. Nevertheless we consider that the risk of non-colonisation would remain considerable.		No change at Deadline 2.					
C2	8	The proposed scale of compensation is to compensate the annual upper 95% CI of adult mortality. According to the Applicants estimates this will require the equivalent of 28 adult Sandwich terns to be delivered into the population annually for the lifetime of the project. It is suggested that "120-150 pairs be likely to produce about 100 chicks per year (equivalent to about 38 adults)". To provide the requisite confidence in the number of recruits that would be produced, the methodology for calculation of a reasonable target population for the compensatory measure should be fully detailed. It would be useful to stress test the proposed colony size in terms of its ability to deliver the required compensation under a worst-case productivity scenario.		Please Refer to Natural England's response Apendix C1 at Deadline 2. The issue remains and we have further queries.					
C3	9	The land to the southwest of Scar Point would appear to offer opportunities for habitat creation. Natural England requests clarification regarding the extent of the area of search, and exclusion of the apparently suitable adjacent area to the south and west		No change at Deadline 2.					
C4	10	Natural England agree that increasing the size of islands within the pool is not likely to impact colonisation potential. However, the proposed lagoon/pool and islands therein are of relatively limited size. We consider that provision of a greater number of islands within a larger lagoon could increase the likelihood of colonisation, given the limited understanding of what drives sandwich tern nest selection. There would be increased certainty in the measure being able to accommodate the population required if more space was available as the potential for habitat heterogeneity would be increased. The works would also then deliver greater ancillary benefits, e.g., to shorebirds in winter. Consideration of increasing the scale of habitat provision should also account for the fact that other species are likely to colonise. This may be of overall benefit, e.g., in the case of black-headed gull. However, it should be considered that there will be increased competition for nest site space. Further, a very spatially compact colony of sandwich terns might be more vulnerable to kleptoparasitism (by black-headed gull) or avian predators that directly predate eggs and chicks, such as grey heron. Aspects of the design such as electric fencing should follow best practice guidance, e.g., Babcock and Booth (2020) Anti-predator Fencing. Tern Conservation Best Practice. Overall, Natural England would strongly encourage the Applicant to be more ambitious regarding the scale of habitat provision, and to present detailed proposals for the habitat creation during the Examination.		Please Refer to Natural England's response Apendix C1. The issue remains and we have further queries.					
C5	12	We note that "Discussions with relevant landowners are underway to secure land or rights to deliver nesting habitat improvement measures at Loch Ryan, Scotland. The Applicant will provide PINS with a further update on the progress of these discussions following DCO application submission." Natural England welcome this and highlight the importance of progressing efforts to secure land or rights to deliver nesting habitat. The measure cannot be considered secured until the completion of this process. We anticipate updates throughout the Examination and will advise as appropriate.		No change at Deadline 2.					
C6	13	We note that the outline roadmap for the implementation of the habitat provision compensation measure aims to allow 2 full breeding seasons of operation prior to first power at SEP and DEP. Sandwich tern recruit into the breeding population in their third year, and therefore the measure could in theory be delivering adults into the wider breeding population at the point of impact. However, colonisation of habitat is highly uncertain in terms of time taken, and uptake/growth. With a 2-year lead in it is highly likely that the measure will accrue a mortality debt in the formative years. Calculations relating to the scale of the measure required to compensate a specified impact should be stress tested against mortality debt scenarios, especially when further adaptive management options are limited.		No change at Deadline 2.					
C7	14	It is important to note that Sandwich tern on the Isle of May do not nest in boxes, but in the open on the terraces. While Natural England are supportive of efforts to restore the Sandwich tern population on the Farne Islands, we highlight that the principal issues identified as affecting the colony relate to vegetation management (resulting in limitations to nesting space) and predation from large gulls. It is anticipated that the forthcoming National Nature Reserve (NNR) plan will include sufficient measures to address these. Should that plan then be implemented, it is difficult to support the delivery of compensation through measures that are not thought of sufficient importance to be delivered by the site management plan. While the provision of cameras to further understand predation would undoubtedly provide useful scientific data, and possibly inform further management, this should not be considered as a measure that could directly provide compensation.		No change at Deadline 2.					
C8	15	Provision of nest boxes, monitoring by camera, and potential installation of bamboo canes to deter gull predation is proposed at the Farne Islands to improve breeding success of Sandwich terns. It should be noted that both nest boxes/shelters and bamboo canes have previously been used on the Farne Islands for the benefit of breeding terns, and boxes/shelters are likely to be deployed in the future. It is also unclear whether the provision of 400 nest boxes and 400 shelters in areas which could support sandwich tern is feasible, and whether this is proposed for areas already occupied by sandwich terns or where it is hoped they could return. Natural England remain concerned that the measures proposed are not truly additional, and in any event are likely to provide only minor benefits compared to an ongoing programme of vegetation and large gull management.		No change at Deadline 2.					
C9	16	We consider that the evidence supplied regarding expected reductions to nest and chick predation is not specific to Sandwich tern. It is not expected that Sandwich terns will nest inside boxes, so nest predation is unlikely to be significantly reduced. If reducing predation of chicks is proposed as a compensatory measure, then a full understanding of existing levels and impacts of that predation will be required in order to design solutions and quantify any benefits. The current estimates of potential gains from these measures appear highly speculative.		Please Refer to Natural England's response Appendix C1. At Deadline 2 Natural England has raised further queries regarding the use of the productivity figure of 0.8 for colonies not subject to mammalian predation or human disturbance.					

Point	Point Number(s) from Appendix C [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix C - Offshore Ornithology Compensation [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
C10	17	Natural England do not consider that the cited evidence is sufficient to suggest high uptake of nest boxes by Sandwich tern. Sandwich tern do not nest within the boxes at the Isle of May (or elsewhere). Productivity benefits have not been quantified. Again, it is very difficult to support the implementation of bamboo canes as compensation due to issues of additionality and the danger of simply repurposing as compensation low-cost interventions that, if effective, should be incorporated into routine site management.		No change at Deadline 2.					
Document used: [APP-070 and APP-071] 5.5.2.1 and 5.5.2.2 Annex 2A - Annex 2B - Sandwich Tern Nesting Habitat Improvements Site Selection									
C11	18	General comments • Natural England agrees with the suitability of the area and identified preferred site within it. The species conservation benefit of increasing resilience by range restoration and population dispersal is particularly highlighted by the recent HPAI outbreak. • It would be useful to clearly identify and prioritise locations other than Loch Ryan in case of insurmountable issues with acquiring or developing a site there, or for potential adaptive management options if required. The RSPB proposal to install a common tern raft in very close proximity to the identified site raises some concerns, but also possibilities. For example, if the pontoon was to be designed with Sandwich tern in mind it would still be reasonable to assume common tern could colonise it. A pontoon and lagoon could then conceivably be implemented alongside one another.		No change at Deadline 2.					
C12	20, 21	We note that the Royal Society for the Protection of Birds (RSPB) have received funding to install a common tern pontoon just offshore of Wig Sands, immediately to the west of Scar Point in Loch Ryan. To help understand the spatial implications better, we request that the Applicant define the potential area for common tern pontoon installation on Figure 5. Additionally, five potential sites suitable for developing breeding habitat for sandwich tern have been identified around Loch Ryan, two of which are in the preferred area of search. We request that the Applicant mark all of the potential sites on Figure 5 and/or 6.		No change at Deadline 2.					
Document used: [APP-072] 5.5.3 Appendix 3 - Kittiwake Compensation Document									
C13	22	Natural England agrees with the statement that a lack of knowledge regarding likely recruits to new nest sites, and the difficulty in securing locations to deploy ANS, will be significant problems.		No change at Deadline 2.					
C14	23	Natural England does not believe that adaptations to an existing structure are inherently more likely to deliver productivity gains than provision of new structures. In fact, if well located and designed bespoke structures could well be more effective.		Please refer to Natural England's response Appendix C1 at Deadline 2. Natural England does believe there may be potential to provde appropriate compensation through the Gateshead Modification tower. However this is subject to the Applicant providing further requested information.					
C15	25	Regarding scale of the measure, a method to quantify benefit has not been fully detailed. This should be submitted into the Examination. We also observe that the Applicant equates birds lost from Flamborough and Filey Coast Special Protection Area (FFC SPA) with birds entering the biogeographic population from which FFC SPA draws its recruits. Given all the other colonies that kittiwake produced by the ANS could colonise, Natural England does not consider this equivalence is likely to maintain the coherence of the national site network. The measure is described as an intervention to an identified issue, but it envisaged that once ledges have been provided to compensate for losses from a known displacement then they will continue to function. I.e., it is the intention that in following years the productivity of those ledges will constitute the measure of success. It remains unclear how this measure is fundamentally different to the provision of an artificial nesting structure (ANS), and ultimately, if it is appropriate to continue facilitating or encouraging opportunistic nesting kittiwakes on buildings in urban environments given the future provision of purpose-built ANS.		No change at Deadline 2. As per our Appendix C1 advice at Deadine 2 further information is needed.					
C16	26	The measure is scheduled to be implemented 4 (worst case 3) years before the SEP and DEP turbines are operational. Due to the proposed timing and definition of success, there are high levels of uncertainty that suitable locations identified (or otherwise) will be available for the required scale of intervention over the lifetime of the project. It is plausible that prior to implementation, improvements and proliferation of deterrent measures and the new provision of bespoke ANS installed nearby may already be excluding birds from nuisance sites while providing high quality alternative sites. I.e., birds that would have been targeted by the measure may have relocated, and the potential for colonisation of inappropriate urban locations, some of which are clearly sub-optimal, may be reduced.		No change at Deadline 2.					
C17	27	Natural England confirm that we are not supportive of the further provision of onshore ANS, especially in the Lowestoft area, until the results of the currently planned provision start to emerge. In the light of the recent planning application for an additional ANS next to the existing one at Gateshead Salt meadows, further provision on the Tyne seems also of questionable benefit. It is not clear that the measures proposed here offer any real-world additional benefits distinct from the provision of new ANS.		Please refer to Natural England's response Appendix C1 at Deadline 2. Due to the size of the impact at SEP and DEP, Natural England considers there may be potential for onshore ANS at the Gateshead Saltmeadows. However as per our advice, further information is required.					
Document used: [APP-074] 5.5.4 - Appendix 4 - Gannet, Guillemot and Razorbill Compensation Document									
C18	28, 29	We note that 50% displacement and 1% mortality rates have been used to estimate mortality of 6 guillemot and 0.5 razorbill a year to be compensated. Natural England does not support the use of a single rate for the purposes of impact assessment, advising that a range-based approach is taken instead. Please see our offshore ornithology comments. We also do not support the use of this specific rate for scaling compensation.		No change at Deadline 2.					
C19	30	Natural England do not consider that the provision of a pontoon will deliver any meaningful secondary benefits for non-target species. If provision of an inland pool is also intended to provide non-like-for-like compensation for project impacts other than Sandwich tern the design must balance the varied habitat requirements appropriately and the habitat provided be of a scale and nature that would result in meaningful levels of benefit.		No change at Deadline 2.					
C20	31	Natural England agree that the creation of a protected inland pool with islands at Loch Ryan would be utilised by waterfowl and shorebirds immediately. However, we highlight that if a pontoon was to be installed instead there would be few, if any, substantial benefits to these species.		No change at Deadline 2.					
C21	32	The nature and scale of set net use in Northeast England is not clear from the text, or information supplied by the Applicant in Annex 1D Record of HRA Derogation Consultation (document reference 5.5.1.4). Natural England request clarity on the exact nature of set netting activity identified, to understand the potential for bycatch reduction to provide compensation opportunities. Are nets for trout set from beaches and are they attended by fishers? Although it is stated that some fishers operate year-round, it is likely that this activity is predominantly seasonal, to what extent? How widespread is this activity? Has any attempt been made to quantify levels of auk bycatch? Has it been ascertained from fishers or NEIFCA if any best practice measures as adopted in the Filey Bay fishery are being followed voluntarily?		No change at Deadline 2.					
C22	33	Regarding the success of measures implemented at Filey Bay to reduce auk bycatch the Applicant states, "the reduced bycatch achieved there may relate to the use of high visibility corline and the attendance of fishers at nets with the aim of releasing any birds that become entangled." It is Natural England's understanding that the Filey Bay Net Limitation Order (NLO) bylaws stipulated that a record was kept of birds removed and number released alive. Has this data been obtained to evidence the efficacy of releasing entangled birds?		No change at Deadline 2.					
C23	34	Natural England currently consider the Looming Eye Buoys (LEB) to remain an unproven technology with respect to reducing bycatch of auks, and has significant reservations regarding the conclusions drawn on the trial carried out by Hornsea 4 OWF. Please see Natural England's advice during the Hornsea Project Four Examination available at: EN010098-001970-Natural England - Comments on any submissions received at Deadline 6 1.pdf (planninginspectorate.gov.uk).		No change at Deadline 2.					

Point	Point Number(s) from Appendix C [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix C - Offshore Ornithology Compensation [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
C24	35, 37	The Applicant states, "The most effective measure implemented at Filey Bay is anticipated to be the training of fishers to safely remove and release birds that become tangled in nets so that the birds survive rather than die". Is there any evidence from any set net fisheries that training fishers to remove and release birds has been successful in reducing bycatch mortality? It is likely that fishers must attend nets very closely with short soak times for birds not to drown prior to retrieval. In this case it may be that bycatch is reducing simply by a disturbance effect reducing bird density in the vicinity of nets. It is not clear that the process of removing auks from nets and releasing them is in of itself a problematic process for fishers. Have fishers identified a need for this training? Before training of fishers to effectively release birds entangled in nets can be considered as a viable compensatory measure, the current level of bycatch mortality that could be prevented by more effective disentanglement and release needs to be quantified. At present it is not clear that live birds are being bycaught and not surviving the removal and release process.		No change at Deadline 2.					
C25	38	The Applicant has identified sites for delivery of bycatch reduction using the analysis presented by Cleasby et al (2022) to identify 'hotspots' of breeding birds from FFC SPA and gillnet fisheries. Natural England highlight that Cleasby et al (2022) state, "Fishing effort data presented here did not include an estimate of bycatch rate. As such, the maps highlight areas of potential rather than actual risk." Accordingly, Natural England do not accept that these locations are necessarily suitable and consider that evidence is required to support the selection of these sites for bycatch reduction measures. Has there been any attempt to ascertain if bycatch is occurring, and if so, to quantify rates at the proposed fisheries?		No change at Deadline 2.					
C26	39	The Applicant states, "Because measures will reduce bycatch of adult guillemots and razorbills (as well as other age classes that are present) the compensation will account one to one for losses to OWF impacts, with no delay." Natural England agree that as bycatch reduction should reduce direct mortality it can deliver compensation instantly upon implementation. However, we consider that the age structure of the population must be accounted for in quantifying the benefit. Only the proportion of adult birds saved from bycatch mortality can be considered as direct compensation for impacts on birds apportioned to the breeding population at FFC SPA.		No change at Deadline 2.					
C27	40	The Applicant states, "It would be necessary to monitor bycatch of guillemots and razorbills in the gillnet fishery being subject to bycatch reduction measures, preferably including monitoring of bycatch numbers before bycatch reduction measures are implemented in order to be able to quantify the gain being made." Natural England consider it essential that empirical data is gathered to evidence the levels and nature of pre-existing bycatch in the target fisheries. Without this data the benefits of implementing the compensatory measure cannot be proven, and following implementation, quantified.		No change at Deadline 2.					
C28	41	The Applicant states, "It would also be desirable to monitor change in guillemot breeding numbers at FFC SPA (corrected for any influence of change in sandeel stock biomass and impacts of climate change) to assess the extent to which the population trajectory at FFC SPA was influenced by reduction in bycatch." Whilst we welcome the proposed monitoring of guillemot trends at FFC SPA, we consider this is best done collaboratively by industry, as a number of developments will be impacting the SPA (and some will be required to provide compensation). It would not be possible to discern the impacts of a given project and/or its compensation, but such monitoring would help provide some comfort that the population trajectory is not adversely affected. We recommend the Applicant work with other developers to deliver strategic monitoring of the FFC SPA colony.		No change at Deadline 2.					
C29	42	Only one year of baseline monitoring of bycatch is proposed, and this monitoring is not implemented until the completion of the development of compensation proposals and site selection. Natural England highlight the necessity of identifying and quantifying bycatch as part of the measure development and site selection process. It is currently uncertain that there is bycatch of the target species that can be reduced. Further, the nature of this bycatch is not understood, so any measure to address it is purely speculative. Natural England advise that at least two years of baseline data should be gathered to account for inter-annual variation.		No change at Deadline 2.					
C30	43	The potential for compensation through eradicating rats in the Channel Islands is identified. Natural England recommend that the Applicant review our advice relating to the Hornsea 4 compensatory measure proposal, in which we highlight that, "it is not clear that the sites shortlisted will offer sufficient opportunity to deliver meaningful benefits to auks or the level of compensation that Natural England consider necessary". This being the case, it is hard to see how predator management in the Channel Islands could offer compensation opportunities to SEP and DEP given the likely requirements of Hornsea 4.		No change at Deadline 2.					
C31	44	The Applicant proposes a collaboration with other developers to deliver a predator reduction measure. As previously stated, Natural England are supportive of potential collaborations to facilitate the delivery of compensatory measures. However, for measures to be delivered by these collaborations to be considered secured the agreements must be fully detailed, and a mechanism for quantifying and portioning the benefits to the projects involved should be set out.		No change at Deadline 2.					

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.		No change at deadline 2.					
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).		No change at deadline 2.					
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.		No change at deadline 2.					
D4	19	The number of animals impacted after mitigation has been applied should be assessed.		No change at deadline 2.					
D5	21	An updated assessment of ADD disturbance, based on likely ADD duration, should be presented.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
D11	43, 85 (RIAA)	Mobile sources (geophysical, seismic surveys) should be assessed as mobile rather than point sources in the CIA.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
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.		No change at deadline 2.					
D15	67	The Applicant must undertake an in-combination assessment of impacts to the Wash and North Norfolk Coast SAC population specifically.		No change at deadline 2.					
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.		No change at deadline 2.					
D17	75	The Applicant should consider committing to a maximum separation distance between piling that occurs on the same day.		No change at deadline 2.					
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 AEoI 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.		No change at deadline 2.					
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 AEoI will not occur. And/or, the Applicant should commit to further mitigation to reduce the risk of significant disturbance.		No change at deadline 2.					
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.		No change at deadline 2.					
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 *et al.* (2016).		No change at deadline 2.					
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		No change at deadline 2.					

Point	Point Number(s) from Appendix E [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix E - Marine Processes [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-090] 6.1.4 Chapter 4 Project Description									
E1	1	Natural England advises that the maximum trench width needs to be clarified in an updated document. Trench sizes quoted use a burial depth of 1.5m and a trench width of 5.2m (assuming a 30-degree trench side slope). However, in 6.1.6 [APP-092] Marine Geology, Oceanography and Physical Processes, it is stated that infield and interlink cables would be buried up to 1.5m below the seabed, with an indicative sediment displacement width of 1m for jetting. Similarly, it is stated that offshore export cables would be buried up to 1m below the seabed, with an indicative sediment displacement width of 1m. This is also contradictory to 5.1.2 [APP-182] relating to sediment process in the MCZ. Until this is clarified, we are unable to confirm that the Worst-case Scenario (WCS) has been assessed and provide nature conservation advice on the significance of the any predicted impacts.		The Applicant's Marine Processes Technical Note [REP1-059] provides further information on the SEP/DEP export cable trench size, which we welcome. However, the worst case scenario(s) for infield and interlink cable trench sizes have not yet been clarified.					
E2	2	Natural England would welcome the provision of a subtidal crossing schedule for the proposed and existing cables due to make landfall at Weybourne. It would also be useful to provide information such as water depth at the cable crossings and their distance offshore. This is particularly important for those cable crossings in the nearshore part of the export cable corridor in order to understand potential impacts on sediment transport processes.		No change at Deadline 2.					
E3	3	The maximum dimensions of cable protection for crossings are given as 21m and 100m with the maximum height of cable crossings at 1.7m. However, in Chapter 6, Para. 371, it states that the height of the protrusion will be up to 0.5m in most cases which is also confirmed in Appendix 6.3 APP-182 for the Cromer Shoal MCZ. The maximum height of cable crossings should be clarified and consistent throughout all submitted documents. Furthermore, there are no cross-section or plan schematics of cable crossing layout, it would be helpful if these were provided in an updated chapter or part of a outlined named plan to further advise on potential impact to sediments transportation.		No change at Deadline 2.					
Document Used: [APP-091] 6.1.5 Chapter 5 EIA Methodology									
E4	4	Para. 88 states that only projects which are well described and sufficiently advanced, with sufficient detail available will be included in the cumulative impact assessment. Please clarify a cut-off date for assessing whether or not to include a project, noting that several PEIRs (Section 42 consultations) are expected in February 2023. Natural England draws the Applicant's attention to our latest Best Practice Guidance 2022 of recommended tiers for scoping plans and projects for the cumulative environmental assessment and advises that assessments are updated accordingly. However, we do note that, since submission of our relevant/written representations, the submission dates for some of the PEIRs have been delayed to late spring. However, this is still within the examination timeframe for SEP and DEP		No change at Deadline 2.					
Document used: [APP-181] 6.3.6.2 Volume 3: Appendix 6.2: Wave Climate Assessment									
E5	5, 6	Fig. 6-2 shows the dimensions of the GBS simulated by DIFFRACT for input to the wave model. This shows WCS turbine foundations for DEP and SEP. The maximum diameter at water level is 13m and the shaft at the seabed is 36m. However, in Section 4.4.3.3 of The Environmental Statement Chapter 4 [APP-090], it states that the WCS for 18+ MW WTG foundations is a maximum diameter at water level of 14m and shaft diameter at the seabed of 40m. Therefore, the WCS GBS foundations modelled have narrower dimensions at water level and at seabed than the WCS presented in Chapter 4 [APP-090] which would lead to slightly greater impact on the wave climate. Additionally, Para. 59 [APP-181] states that the GBS have diameters of 13m and 30m wide bases. This differs from the base diameter presented in Figure 6-2. Natural England advises that the assessment currently doesn't reflect the worst case scenario and advises that this needs addressing in an updated document before a >36m shaft diameter can be agreed with certainty.		No change at Deadline 2.					
Document used: [APP-102] 6.1.16 Chapter 16 Petroleum Industry and Other Marine Users									
E6	7	There are potential cumulative impacts due to overlapping Operation and Maintenance (O&M) activities at Waveney, Blythe Hub and Elgood Wellhead. We note that Blythe Hub has been considered in Chapter 6, but not Waveney or Elgood. Natural England advise that Waveney and Elgood should be included in the cumulative impact assessment (CIA) to fully understand the potential impacts.		No change at Deadline 2.					
Document used: [APP-289] 9.5 Offshore In Principle Monitoring Plan (IPMP)									
E7	8	We note that whilst sandwave recovery/migration has been included for post-construction in the Tab. 3. of the IPMP, sandbanks have not. Natural England advise that sandbank monitoring should also be included in the IPMP to ensure that the null hypothesis is correct in relation to marine processes.		This item remains under consideration. Please see our advice in the IPMP.					
Document used: [APP-092] 6.1.6 Chapter 6 Marine Geology, Oceanography and Physical Processes									
E8	9	The text describes a sandbank in NW of DEP N array area and also a sandbank in the NW of DEP S array area. The bathymetry shows the presence of significant sandbanks, which are probably Cromer Knoll and Inner Cromer Knoll, but no information has been provided regarding their form, spatial extent, elevation, depth, rate of migration and stability. In order to understand impacts of the development on marine process associated with these sandbank features, please can the Applicant provide further information.		The Applicant has now provided further information in Marine Processes Technical Note [REP1-059] which addresses this evidence gap and this issue has now been resolved.					
E9	10	Natural England queries if there is an equivalent shallow geology schematic for the Interlink Cable Corridor to help inform advice on significance of impacts?		No change at Deadline 2.					
E10	11	Natural England advises that the neap and spring tidal excursions should be provided. The spring tidal excursion is useful for estimating the potential extent of direct changes to flows as well as the anticipated maximum zone of influence for sediment plumes. We advise that the neap/spring tidal excursions should be quantified. It would also be useful for the Applicant to provide a map showing the spring tidal ellipses across the study area.		The Applicant has now provided further information in Marine Processes Technical Note [REP1-059] which addresses this evidence gap and this issue has now been resolved.					
E11	12	Para. 137 notes that owing to the mobility of Holocene sand along the SEP and DEP cable corridor, there is the potential for movement of this sediment and exposure or burial of the underlying geological units. Natural England queries what is the potential seabed mobility here and sediment transport potential? Has this been quantified? It would be helpful if the sediment transport potential could be provided by the Applicant in an updated chapter in order to assess cable burial success.		We continue to advise that the Applicant will need to consider seabed mobility here in order to assess cable burial success. Thus, this item remains under discussion.					
E12	13	The HR Wallingford (2002) suspended sediment concentration (SSC) data sets are old. Whilst the Cefas (2016) data are newer, they are not site-specific, instead referring to 'the seas around the UK'. SSC should ideally be collected throughout the water column over a range of representative tidal, seasonal, and wave conditions. If data have been collected for DOW and/or SOW, those data would be considered appropriate and should be included.		No change at Deadline 2.					
E13	14	Para. 145. The regional net sediment transport rates provided are now old (2002). Natural England's best practice (2021) advises that data older than five years should be used with care. Furthermore, it is not clear which geographical area these sediment transport rates relate to, and it would be useful to clarify this. Natural England advises that more recent regional net sediment transport data should be used and more context provided within an updated chapter on the regional net sediment transport rates in order to have any certainty in the conclusions drawn by the Applicant.		No change at Deadline 2.					
E14	15	Natural England welcomes the inclusion of sandbanks in the list of impact receptors. However, we believe it is important that the Applicant includes in this list, all marine protected areas that could be affected by changes to physical processes due to the proposed development (even if they are considered and assessed in other chapters). This should also include supporting habitats. Furthermore, all relevant marine protected areas should be identified on the appropriate figures or maps within this chapter.		We are content that Marine Protected Areas have now been identified on the Zone of Potential Influence map within the Marine Processes Technical Note [REP1-059].					
E15	16	Natural England notes that the 'Sand banks (and associated sandwaves)' Receptor Group does not include any mention of Sheringham Shoal, Pollard Bank, Cromer Knoll, Inner Cromer Knoll, sandwaves in SEP, sandbanks situated at the NW of DEP N array and in DEP S, and in the north of the cable corridor between DEP N array and SEP. Natural England advises that all sandbanks within the outer limits for the project, should be included and named to ensure that all potential impact pathways have been thoroughly assessed.		The Applicant has now provided further information in Marine Processes Technical Note [REP1-059] which addresses this evidence gap and this issue has now been resolved.					
E16	17	Para. 153. Please include information on the source of the cliff erosion rate and how the shoreline erosion has been taken into account in Chapter 3 (Site Selection and Assessment of Alternatives). Natural England advises that it is important to consider recent cliff and beach profile survey data, alongside longer-term records (i.e. years), in order to establish the baseline. It is also vital to consider climate change impacts on cliff retreat and beach downwearing. This information should be included in an updated chapter to ensure that impacts over the lifetime of the protects have be thoroughly assessed.		No change at Deadline 2.					
E17	20	Natural England queries if multiple coincident dredging operations are likely to occur during development and what would the worst case scenario would be? This could potentially lead to more spatially extensive and/or higher concentration sediment plumes. The WCS should be quantified in terms of suspended sediment concentration, plume extent, persistence and sediment deposition thickness. Natural England advises that further clarity is required within an updated chapter covering these points to ensure that the WCSs has been fully considered.		No change at Deadline 2.					

Point	Point Number(s) from Appendix E [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix E - Marine Processes [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
E18	21	Para. 180. The WCS for changes in SSCs due to seabed preparations for foundation installations would be associated with Gravity Base Structures (GBS). The discharge of dredged sediments during the preparation of GBS foundations will lead to elevated SSCs, and sediment plumes. There is a chance that sediments disturbed during construction of the SEP array, will enter the Inner Dowsing, Race Bank and North Ridge SAC (within 10km tidal excursion). The predicted deposition footprint has not, however, been provided for discharge of dredged material at the sea surface and near the seabed. Natural England advises that predicted deposition footprints from the sea surface and near seabed discharges of dredged material at the SEP array is provided by the Applicant. This would provide further information on the potential effects due to discharged dredged material at the development site.		No change at Deadline 2.					
E19	24	Natural England notes that no sandwave levelling is expected for the "SEP in isolation" scenario because there are no sandwaves present along the ECC. Therefore, any requirement for sandwave levelling activities haven't been assessed. Please clarify whether the exclusion of sandwave levelling within SEP will be secured by a condition within the DML/DCO and/or named plan.		No change at Deadline 2.					
E20	25, 26, 27	Paras. 239-241. The SOW and DOW-based model simulation quantification of magnitude of change are useful analogues for sediment disturbed by export cable installation of the current proposals. However, it is not clear if/how the SOW/DOW max temporary disturbance widths for export cable installation and burial, or amount of sediment disturbed compare with those planned for SEP/DEP. Further more in Para. 239, it is stated that although SSCs will be elevated during the development, they are likely to be lower than concentrations during storm conditions (including the Dec 2013 storm surge), which are likely to drive greater changes to the seabed than those due to the OWF infrastructure. Para. 245 notes that elevated SSCs above prevailing conditions are anticipated at the HDD exit point, but that they are also likely to remain within the range of background nearshore levels. Para. 255 & 256. Results from the sediment dispersion modelling for the SOW and DOW export cables (Para.s 170 & 171 in Chapter 6), suggest that suspended load for disturbed mud would extend as a plume over <2km for SOW, and <1km for silt in either direction. In all instances, Natural England advises that, within an updated chapter, it should be shown how the SOW/DOW trench size and amount of disturbed sediment compare with those for SEP/DEP and quantitative evidence should be provided to support the predictions regarding SSCs. Until this is provided Natural England is unable to support the conclusions drawn by the Applicant.		The Applicant has provided further information in Marine Processes Technical Note [REP1-059] on the upscaled sediment disturbance volume, plume extent and deposition thickness for SEP/DEP export cable installation., which we welcome. We are now content to agree with the conclusions drawn here.					
E21	28	Para. 255. Given that the ECC traverses the CSCB MCZ, it would be very helpful if the plume model data for SOW/DOW could also be provided as predicted deposition footprints for representative locations between the HDD exit location and seaward boundary of the MCZ. These should be representative of the different sedimentary zones along the ECC within the MCZ and also include the HDD exit location. Furthermore, it is not stated what the estimated deposited sediment thickness may be for the different sediment fractions (i.e. fine/medium/coarse) caused by the export cable installation. Can estimated deposited sediment thickness be provided for the different sediment fractions? If so, modelled deposition footprints and thickness should be provided for locations representative of the different sedimentary zones along the ECC within the MCZ and include the HDD exit location. Until this is provided we are unable to agree with the Applicant's conclusions relating to SSC deposition and potential impacts as a result of smothering		Natural England welcomes the upscaled sediment disturbance volume, plume extent and deposition thickness for SEP/DEP export cable installation data provided by the Applicant in the Marine Processes Technical Note [REP1-059]. We are content with the updated information provided by the Applicant.					
E22	29	In the Stage 1 CSCB MCZA (Doc Ref 5.6), the pressure 'Smothering and siltation rate changes (light)' has been used for the sensitivity assessment where 'light' deposition is defined as 'of up to 5cm of fine material added to the habitat in a single, discrete event', and 'heavy' deposition is up to 30cm of fine material. In Section 8.1.2.3 (Stage 1 CSCB MCZA), it states that deposits would be up to 3cm depth, but in 6.6.4.6, there is no similar estimate of deposited sediment thickness stated. Consequently, it is not evident whether the smothering and siltation rate changes (light) pressure is the most appropriate, or whether the sensitivity of the CSCB MCZ is 'negligible' as stated in Table 6-23 (Chapter 6), or the impact 'negligible adverse', given the predicted two year recovery time In Para. 259 & 262 (Chapter 6). it would be helpful if the rationale for the 3cm sediment deposition thickness could be provided and also the rationale for the negligible sensitivity assessment for the CSCB MCZ. Until this clarification is provided we are unable to agree with the Applicants conclusions		No change at Deadline 2, awaiting clarification from the Applicant.					
E23	30, 48	We note that no sandwave levelling is anticipated for the "SEP in isolation" scenario. However, it may be required in a "DEP in isolation" or SEP and DEP scenarios. This could lead to impacts on nearby subtidal geomorphological features (e.g. the Cromer Knolls, Sheringham Shoal) through sandwave levelling. We advise a precautionary approach is adopted with regards to direct impacts to sandbanks and morphological features across the DEP/SEP arrays and adjacent cable corridors due to sandwave levelling, and potential indirect effects on other receptors (e.g. CSCB MCZ and/or the East Anglia Coast). Natural England advises that impacts to subtidal geomorphological features due to sandwave levelling should be adequately assessed, and indirect effects on other receptors be considered in an updated chapter. An assessment should be carried out to provide reassurance that there will not be any long-term morphological effects. We advise that Table 6-46 may need revision following this work.		In the Marine Processes Technical Note [REP1-059], the Applicant has provided a more detailed characterisation of the sandbanks and sandwaves that exist across the study area. We advise monitoring to establish long-term trends in the overall seabed bathymetry across the array site(s) through comparison of further bathymetry datasets from different time periods. We also advise that analysis of additional datasets from different time periods is needed to help establish whether sandwave morphological changes and migration rates are due to natural or anthropogenic drivers.					
E24	31, 32, 48	Para. 292 & 293. The evidence from Race Bank OWF provides some useful insight to the potential impact of sandwave levelling at DEP N-DEP S. However, in order to understand whether the sandwaves are likely to regenerate after levelling, or be adversely impacted along with any adjacent bank system, it is first necessary to assess the seabed morphology at the locations requiring sandwave levelling using bathymetric survey data. In turn, the anticipated ranges of natural seabed change, sandwave migration rates and expected sediment variability should be assessed. This would inform the baseline upon which morphological change and variability can be assessed throughout the project development and lifetime. This work should enable forecasting of site-specific sandwave regeneration timescale. We advise that anticipated ranges of natural seabed change, sandwave migration rates and anticipated sediment variability should be further assessed using bathymetric survey data, for those locations likely to require levelling (pre-sweeping). In addition, we are unable to agree with the magnitude of effects on bedload sediment transport for sandwave levelling within offshore cable corridors (presented in Table 6-26) owing to the uncertainty regarding sandwave recovery at SEP/DEP and potential impacts on adjacent bank systems. Natural England advise that the assessment described above should be carried out in order to gain more certainty regarding the likely regeneration of sandwaves following levelling. Until this is provided we are unable to agree with the Applicant's conclusions on sandwave recovery with any certainty.		The Applicant has now provided [REP1-059] a more detailed characterisation of the sandbanks and sandwaves that exist across the DEP N and DEP S Zones of Influence which will form a useful baseline upon which to compare future sandbank/sandwave morphological change trends and migration rates.					
E25	34	Given the greater spatial extent of the combined SEP/SOW and DEP/DOW arrays and complex seabed topography, there is the potential for more spatial variability in tidal behaviour across the arrays. Yet, in Para. 314, it is stated that changes to seabed distribution due to turbine foundations at DOW were minimal, implying that changes to tidal currents (and waves) are local and do not have a significant effect on sediment transport further afield. Natural England advises that quantitative evidence to support this implication is provided so that the significance of the potential impacts can be considered further.		Please see our comment to E30 on post-construction monitoring of DOW with regards to changes to seabed distribution.					
E26	36, 48	Para. 319 states that no significant impact on the tidal current regime is anticipated for SEP/DEP and therefore the impact on sandbanks is anticipated to be negligible adverse. However, we advise that a precautionary approach should be adopted. Given the greater spatial extent of the combined SEP/SOW and DEP/DOW scenarios, complex seabed topography, and potential for more spatial variability in tidal behaviour across the arrays the potential impacts on a nearby sandbank systems should be considered and assessed. Until this is provided Natural England is unable to agree with the Applicant's conclusion on the significance of the potential impacts		Please see our comment to E30 below. We would also advise that monitoring of the sandbank systems that exist across the DEP S and DEP N Zones of Influence is necessary in order to validate the Applicant's conclusions that the impacts on the sand banks due to the Project will be negligible.					
E27	37	Natural England are not able to agree with the assessment of 'Frequency' as 'Medium' in Table 6-31. We would advise that the 'Frequency' of the effect to the wave regime is 'High' rather than 'Medium' because the effect is permanent and occurring with a high frequency. Natural England advises that the assessment is updated accordingly to better determine impacts alone and cummulatively.		No change at Deadline 2.					

Point	Point Number(s) from Appendix E [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix E - Marine Processes [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
E28	38	Para. 334 states that changes to marine geology, oceanography and physical processes would be low in magnitude and largely confined to local wake or wave shadow effects attributable to individual WTG foundations. Natural England requests that evidence or analysis should be provided to support these conclusions. Until this evidence is presented we are unable to support the Applicant's conclusions.		The Applicant has provided the Marine Processes Technical Note (PINS Doc Ref No. 13.5), in which it is stated that 'There have been significant changes within the six sandwaves areas shown on Figure 14'. These changes were noticeable within the first year of construction of DOW. Therefore, we remain unable to support the Applicant's conclusions that 'changes to the marine geology, oceanography and physical processes would be 'small in geographical extent'. We would again advise monitoring of the sandbank systems across the study area post-construction in order to establish any long-term alterations in seabed morphology due to development-related changes in the sediment transport or hydrodynamic regimes.					
E29	39	Para. 335 refers to 'the evidence from theoretical studies….', however it is not clear which theoretical studies are being referred to. Natural England requests that the predicted effects on sediment transport processes due to the O&M of SEP and DEP should be provided. For example, changes to the predicted frequency exceedance of the critical shear stress could be assessed. This could inform changes to the percentage of time that the spatially-varying typical seabed sediment across the development is predicted to be mobilised by tidal and wave processes. Natural England advises that the predicted effects on sediment transport processes due to the O&M of the development should be considered over the lifetime of the project and included in an updated assessment. Until this is provided Natural England advises that there is uncertainty in the conclusions drawn.		Please refer to our comment above.					
E30	40	Para. 337. Geophysical survey data from the existing OWFs are useful but conclusions drawn are too vague to provide any useful comparison with SEPDEP. Natural England requests that further information such as when this survey was undertaken, what the minor and localised effects might be that remain, how the seabed is not greatly changed and since when. Furthermore, does the post-construction survey show any evidence of change to sandbank morphology or migration rate across DOW? This information is required to better determine potential changes to sandbank morphology, and provided the necessary evidence to support the Applicant's conclusions.		The Marine Processes Technical Note (Doc Ref No 13.5) provided by the Applicant shows that significant morphological change has occurred at a number of sandwave fields within the DOW array area since its construction. Therefore, we cannot agree with the conclusion that 'sandwave migrations are indicative of naturally occurring processes across the array site and are not driven by changes caused by DOW.' To support this conclusion would require further subsequent sandwave migration analysis.					
E31	41	Point 339. Predicted effects on sediment transport processes due to the O&M of the development have not been evaluated, neither have the sandbanks in the array(s) been sufficiently characterised to enable us to agree with the sensitivity and value assessment (Table 6-34). Natural England advises that further evidence should be provided to support this assessment, before conclusions can be confidentially supported.		Whilst the Applicant has now provided a more detailed characterisation of the sandbanks situated within the DEP N and DEP S Zones of Influence, operational phase impacts on sediment transport processes (and in turn seabed morphology) also need to be adequately considered. Therefore, this item remains under discussion.					
E32	42, 43	The WCS (Para. 345) is for scour protection to be provided for all foundations, it is not clear whether a scour assessment has been carried out. Whilst Para. 347 states that it is likely that any secondary scour effects would be confined to within a few metres of the direct footprint of the scour protection material. We advise that a scour assessment and secondary scour assessments should be carried out and the impact of scoured material from around foundation structures in terms of elevated SSCs and resulting deposition should be considered to provide a WCS in relation to potential scour effects		No change at Deadline 2.					
E33	44	Para. 378. A crossing is shown between the offshore ECC and the disused Stratos telecom cable in the CSCB MCZ. It is not stated what the depth of this crossing would be, however, if it is sited inshore of the closure depth, then this could have an effect on sediment transport in the nearshore. Natural England advise that if this crossing is located inshore of the closure depth, then the potential effect on sediment transport processes will need to be considered. Therefore, we would welcome commitments to cut and remove the section of disussed cable to negate the need to place cable protection.		No change at Deadline 2.					
E34	46	Para. 395 states that it is not known whether cable repair and reburial will directly impact on sandbanks and sandwaves in the area during the operation phase. Natural England queries if there is any relevant evidence available from DOW/SOW that could be drawn upon here? Without this information we are unable to advise on the significance of any ongoing disruption to marine processes over the life time of the projects		No change at Deadline 2.					
E35	47	Para. 416. The cumulative effect on sediment transport processes at sandbank systems is not discussed here but should be considered. Until this is provided we are unable to support the conclusions which have been drawn.		No change at Deadline 2.					

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.		Please refer to the Deadline 2 cover letter, we continue to defer to the advice of Cefas and the MMO regarding the sufficieny of the sediment sampling.					
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.		No change at deadline 2					
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 I 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 I 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.		No change at deadline 2					
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".		No change at deadline 2					
F5	13	Natural England welcomes the characterisation of the out-cropping chalk feature observed from seabed video imagery at Station EC-26 adjacent to landfall 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.		No change at deadline 2					
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 I 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.SMx.CMx) 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 I 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 I stony reef as a precautionary measure and as such is secured in DCO/dML named outline plans.		No change at deadline 2					
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.		No change at deadline 2					
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.		No change at deadline 2					
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 I / UK BAP priority habitat S. 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.		No change at deadline 2					
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 I / UK BAP habitats if naturally present on the surrounding seabed.		No change at deadline 2					
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.		No change at deadline 2					

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-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 I Sandwich terns. We advise further consideration is given to removal of turbines from DEP N		No change at deadline 2					
No change at deadline 2									
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 I Sandwich 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 I birds from further data collection. Natural England will continue to discuss this with the Applicant and other interested parties.		No change at deadline 2					
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.		No change at deadline 2					
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: •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 I birds •More detail on the use of drones for offshore inspections		Within our cover letter at Deadline 2 we have provided clarification regarding the deployment of cable protection, both within and outside of designated sites, after construction has completed. This includes the need for additional marine consents to cover said works.					

Point	Point Number(s) Appendix G [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix G - Cromer MCZ [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
Broadscale theme 1: Small Scale Losses									
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 EIA perspective rather than one considering whether or not the conservation objectives for the site will be hindered. Please see Annex 1 of [RR-063] Natural England's Relevant and Written Representations SEP AND DEP Appendix G - Cromer MCZ for further details on Natural England's standard position.		No change at deadline 2.					
G2	2	Whilst Natural England acknowledges that the MCZ consists of broadscale habitat types rather than features akin to Annex I 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.		No change at deadline 2.					
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 relating to feature extent could be undertaken?		No change at deadline 2.					
Broadscale 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 years) 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 MEEB to offset these impacts.		No change at deadline 2.					
Broadscale 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.		No change at deadline 2.					
Broadscale 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 MMO in considering that in order to fully discharge regulatory duties under section 69 (1) of the MCAA, 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 App. G of [RR-063].		No change at deadline 2.					
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/built 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.		No change at deadline 2.					
Broadscale 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 Subtidal Chalk FOCI is are 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 (HOCI 20) when assessing impacts. This is in accordance with our advice on fishing activities. We advise that any assessments are updated accordingly.		No change at deadline 2.					
G9	14	We note that the Applicant's sensitivity biotope mapping ([APP-079] 5.6.2 Appendix 2) is based on the veneer within the glacial channel rather than the sub cropping chalk, which does not align with our advice (point G7). 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.		No change at deadline 2.					
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.		No change at deadline 2.					
Broadscale theme 5: Mitigation - Standard Best Practice mitigation and application to SEP/DEP									
G11	16b	Reduce number of export cables though 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 project constructs to reduce the impacts.		No change at deadline 2.					
G12	16e	Micrositing 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.		No change at deadline 2.					
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.		No change at deadline 2.					
G14	16g	Adoption of the reburial hierarchy with external cable protection being last resort – Whilst reburial is mentioned in various documents the reburial hierarchy is not. An outline of the process for reburial should be included with the MCZ Cable Specification, Installation Plan and Monitoring Plan [APP-291].		No change at deadline 2.					
G15	16h	Pre consent undertake a cable burial risk assessment using geotech 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 worse-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 consenting stage.		No change at deadline 2.					
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 Application as part of the consenting phase.		No change at deadline 2.					
G17	16l	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]		No change at deadline 2.					
G18	16m	No cable protection in fisheries byelaw areas to avoid hindering reef recovery, noting that cable may still go through the outskirts 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.		No change at deadline 2.					
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.		No change at deadline 2.					

Point	Point Number(s) Appendix G [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix G - Cromer MCZ [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
Broadscale 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 pit(s), stored and redistributed. And how impacts to surrounding features can be avoided/reduced. We advise that Section 8 of the [APP-077] MCZ Stage I assessment requires more detail and consideration of this aspect.		No change at deadline 2.					
Broadscale Theme 7: Secondary Scouring									
G21	18	Natural England notes that secondary scouring needs further consideration in the [APP-077] Stage I MCZ assessment (para. 192, 197 and 209) in relation to impacts to sediment transportation		No change at deadline 2.					
Document Used: [APP-080] 5.6.3 Assessment of Sea Bed Disturbance Impacts from Unexploded Ordinance (UXO) Clearance									
G22	19	Natural England welcomes the consideration of ORDTER (2018) when considering the potential size of UXO detonation craters. 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 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 UXO detonations are considered in-combination with Hornsea Project Three.		No change at deadline 2.					
Document Used: [APP-081] 5.6.4 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 idea behind the MEEB option is sound i.e. the recreation of mixed sediment/reef epifauna 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 clutch and restoration of an Oyster bed in the middle of a mixed sediment area. For this to be considered as additionality 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.		Natural England supports the changes to address our concerns in relation to the location of the proposed Oyster Bed.					
Document Used: [APP-083] 5.7.1 Appendix 1 - In-Principle Cromer Shoal Chalk Beds (CSCB) Marine Conservation Zone (MCZ) Measures of Equivalent Environmental Benefit (MEEB) Plan & [APP-084] 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 size/scale of oyster bed is dependent on ecological functionally and therefore will not change. Natural England recognises the time required for ecological functionally 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)		No change at deadline 2.					
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 Hornsea Project Three, it is challenging to demonstrate that this option will offset habitat loss.		No change at deadline 2.					
G26	28	Natural England recommends working with local fishermen to source the clutch 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.		No change at deadline 2.					
Document Used: [APP-182] 6.3.6.3 Environmental Statement Appendix 6.3 - Sedimentary Processes in the Cromer Shoal Chalk Beds MCZ & [APP-183] 6.3.6.4 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.		No change at deadline 2.					
G28	31, 32	Natural England notes that, in some places, sediment veneer is likely to be less than 1m, with 0.3 -1.25m 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 G8, G9 and G10, Natural England advise that sediment veneers over chalk to constitute a subtidal chalk feature (HOCI 20). Natural England advises that impacts to peat and clay should also be avoided from cable installation and potential cable protection.		No change at deadline 2.					
Document Used: [APP-283] 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.		No change at deadline 2.					
Document Used [APP-291] 9.7 Outline Cromer Shoal Chalk Beds (CSCB) Marine Conservation Zone (MCZ) Cable Specification, Installation and Monitoring Plan (CSIMP)									
G30	34	Natural England advises that prior to construction, sign off of this document should be required in consultation with the relevant SNCB.		No change at deadline 2.					
G31	35	Natural England advises that where there is shallow veneer there should be a commitment to undertake ongoing monitoring and management .		No change at deadline 2.					
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-188] Fig. 14. Natural England advises the CSIMP is amended with the more detailed information provided in Environmental Statement [AP-188] given the purpose of this document.		No change at deadline 2.					
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 I Red Throated Diver and possible implications of mitigating impacts to the Greater Wash SPA.		No change at deadline 2.					
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 CSIMP. See item A21 of the DCO/DML tab.		No change at deadline 2.					
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 CSIMP.		No change at deadline 2.					
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.		No change at deadline 2.					
Document Used [APP-293] 9.7.2 Appendix 9.7.2 - Export Cable Burial Risk Assessment									
G37	41	Natural England advises that standard best 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 OWF 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 named plan		No change at deadline 2.					

Point	Point/Paragraph Number(s) from Appendix H [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix H - Seascape and Landscape Visual Impact Assessment (SLVIA) - [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
Broadscale 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. 591 of 6.1.25. [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 6.1.25. SVIA [APP-111] and maintains that the effects are significant and adverse.		No change at deadline 2.					
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 SVIA, 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.		No change at deadline 2.					
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 EIA 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. • Closest coastlines to SEP and DEP combined are within NCAONB and SEP in isolation within the NCAONB and the North Norfolk Heritage coast (NNHC). • 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 AONB. The contrast will create a visually cluttered seascape when viewed from the NCAONB and NHHC. • Presented visualisations [APP-135 to APP-152] show a clear curtaining effect when SEP and DEP are viewed for the NCAONB created by the joining together of the proposed projects with existing OWF. • The perception of wildness, remoteness, and tranquillity (QNB 6) that users of the NCAONB experience will be degraded. • Existing wind farms have already compromised the statutory purpose of the NCAONBs. We further advise that it would be impossible for SEP and DEP to not present a further and significant impact to that which has already occurred. However we believe that the SVIA conclusions do not reflect this.		No change at deadline 2.					
Broadscale Theme 2: " Conclusion of the SVIA - 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 SLVIA [APP-111] implies that the Landscape Institute's core guidance (Para. 3.35, GLVIA3) provides a threshold of impact significance in EIA terms; and that this threshold sits above 'moderate significance'. However, as stated in Para. 3.32 of the GLVIA3 this significance rating has no meaning in relation to the EIA Regulations. There is no single approach to assessing the effects of OWFs on the statutory purpose of designated landscapes, and the GLIVIA3 does not provide a lead on this subject.		No change at deadline 2.					
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. While the conclusion made in Para. 591 A [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.		No change at deadline 2.					
Broadscale Theme 3: "Requirement for a Cumulative Impact Assessment"									
H6	17, 18a, 18b, 18c, 18d, 18e	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 "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 SVIA. 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.		No change at deadline 2.					
H7	18f	The visualisations appended to ES chapter 25 [APP-135 to APP-152] 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 the further harm to the seascape setting of the NCAONB and the consequences that this has on the already compromised statutory purpose of the NCAONB.		No change at deadline 2.					
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 ExA and the decision maker.		No change at deadline 2.					
Broadscale Theme 4: "Regard for specific statutory purpose of nationally designated landscapes - National Policy Statement (NPS) for Energy (EN-1)"									
H9	Point 4	The overarching NPS for EN-1 (Para. 5.9.9) 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).		No change at deadline 2.					
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 loss to QNB 6. The statement 'Offshore wind farms are, however, already visible from the AONB…' (Paras. 522 and 531 of the SEP and DEP SLVIA [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 groups impacted.		No change at deadline 2.					
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. 1-2 of Document 9.25 [APP-311] 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. 003) states that 'Lighting near or above the horizontal is usually to be avoided to reduce glare and sky glow', and we note that the SEP and DEP site is on the horizon when viewed from the NCAONB. Natural England advises that the Applicant gives further consideration is to this.		No change at deadline 2.					
H12	19e	Natural England is concerned that the three night-time visualisations indicate a wide expanse 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. 251 of the SVIA [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.		No change at deadline 2.					
H13	19e	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. 252 of the SEP and DEP SVIA [APP-111]). We advise that day and night views are fundamentally different, not least because visual perception at night is dictated by lights and illuminations rather than distance, with the perception of latter being radically altered at night. Natural England is therefore unable to agree with justification used by the Applicant to draw their conclusions.		No change at deadline 2.					
Broadscale Theme 5: "Comments on Document 9.25 [APP-311] Impacts on the QNB of NCAONB"									
H14	20	Natural England advises that the NCAONBs 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 affect.		No change at deadline 2.					

Point	Point/Paragraph Number(s) from Appendix H [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix H - Seascape and Landscape Visual Impact Assessment (SLVIA) - [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
H15	Table 1 QNB2	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.		No change at deadline 2.					
H16	Table 1-2 QNB3	Diversity and integrity of landscape, seascape and settlement character: Natural England disagrees with the applicant's RAG status of Amber. It suggests the RAG status should be Red. See broadscale theme point 8 (Points H28 to H32) for rationale.		No change at deadline 2.					
H17	Table 1-2 QNB6	Sense of remoteness, tranquillity and wildness: Natural England disagrees with the applicant's RAG status of Amber. It suggests the RAG status should be Red. See section 4 (Points H9 to H13) for rationale.		No change at deadline 2.					
Broadscale Theme 6: "Design Objective 11 distinctive and unique character of the local landscape / seascape, including the Norfolk Coast AONB and views out to sea"									
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.		No change at deadline 2.					
H19	21a	Natural England acknowledges the changes made to the layout of the indicative turbine locations since the consultation on the Section 42 Consultation. Whist we welcome these changes we still advise that significant adverse effects persist.		No change at deadline 2.					
H20	21b	Natural England disagrees with the statement that the NCAONB 'will not be directly impacted by the proposed offshore arrays' (Para. 3.3.5 of the 9.26 Offshore Design Statement [APP-312]) as no evidence has been provided to support this statement. We would also like to clarify that SEP and DEP would be visible to the human eye between the shoreline (low water mark) and 1km from the shoreline as the montages for the inland viewpoints located within the NCAONB (well beyond 1km from the shoreland) clearly show the turbines of SEP and DEP.		No change at deadline 2.					
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)[APP312]. Specific comments addressed in H26 to H29.		No change at deadline 2.					
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.		No change at deadline 2.					
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 265-330m for SEP and DEP) will in practice make this very difficult to achieve. Therefore, Natural England is unclear as to how this objective will achieved.		No change at deadline 2.					
H24	Table. 2 Layout objective 3	Achieve simple visual relationship with skyline, avoiding variable spacing and overlapping of turbines within an array or significant outliers: 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 SVIA [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?		No change at deadline 2.					
H25	Table. 2 Layout objective 4	Achieve satisfactory visual relationship (balanced, ordered, coherent and clearly legible) 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 SVIA [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?		No change at deadline 2.					
Broadscale Theme 7: Visualisations showing how 53 265m high turbines may appear in views from the NCAONB should be used to inform the EIA process "Worst Case Scenario Options"									
H26	23, 24a	Natural England's advises that the impact to the statutory purpose of the NCAONB should WCS1 be the option carried forwards, needs to be understood and its likely effect on the NCAONB assessed. Further, a scenario with turbines of heights between 256 to 330m, and of a number between 30 and 53, may also constitute an additional Worst Case Scenario. 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.		No change at deadline 2.					
H27	24c	Natural England notes that the proposed substation(s) will be constructed to a height of 50m above HAT, at an unspecified distance from the coast. Natural England advise that the minimum distance from the coast is provided within the project's core information so that its likely effects on the NCAONB can be appropriately screened within the EIA. Further, it is unclear to Natural England whether the substation within the SEP project area would be larger or higher (than 50m) in the development scenario where it is the only substation to serve both the SEP and DEP offshore wind array areas.		No change at deadline 2.					
Broadscale Theme 8: "Sensitivity of Landscape Character Types"									
H28	Point 8, 25a, 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 [RR-063]) and remain Major-Moderate, significant in EIA terms and adverse.		No change at deadline 2.					
H29	25bi	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 [RR-063]). We advise that the assessment should be updated to reflect this.		No change at deadline 2.					
H30	25bii	We remain in disagreement with the DEP and SEP SVIA [APP-111] judgements regarding the magnitude of effects from SEP and DEP on Drained Coastal Marshes, Coastal Shelf, and Open Coastal Marsh.		No change at deadline 2.					
H31	25biii	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 draw the ExA's attention to the fact that the minimum 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.		No change at deadline 2.					
H32	25biv	We note inconsistencies in judgements on the scales of effect from SEP and DEP on landscape character. The SIVA 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 SVIA [APP-111]). This statement contradicts analyses shown within Table 25-16 (SEP and DEP SVIA [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		No change at deadline 2.					
Broadscale Theme 9: "Scale of effects on SEP and DEP on statutory purpose of the NCAONB from the agreed representative viewpoints"									
H33	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.		No change at deadline 2.					
Broadscale Theme 10: "LVIA Landscape Baseline and Assessment"									
H34	28	A vital mitigation measure during the construction phase, should both projects be approved, is for the onshore 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 Anglia offshore windfarms.		No change at deadline 2.					
H35	29	Natural England advises that close attention is made to the advice of the NCAONB Partnership and relevant local authorities. These local partners have knowledge and understanding of the immediate landscape through which the cable corridor will pass.		No change at deadline 2.					

Point	Point Number(s) from Appendix I [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix I - Terrestrial Ecology [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: Document Used: [APP-090] 6.1.4 Chapter 4 Project Description									
I1	3	The method for some crossings has yet to be confirmed within the Crossing Schedule. Natural England seeks to be consulted on, and be provided with all relevant evidence, for all undecided crossing locations prior to construction commencing otherwise there is a concern that protected species may be negatively impacted by the project. Natural England requests that this is secured in the equivalent of an Outline Landscape and Ecological Management Strategy (OLEMS) document.		As per our Appendix I2 advice at Deadline 2, we welcome the Applicant's suggestion for a Committed Scheme and programme for each watercourse. We would welcome clarification of review of outline schemes during the consenting phase.					
Document Used: [APP-106] 6.1.20 Chapter 20 Onshore Ecology and Ornithology									
I2	4, 10, 11, 38	Natural England advises that in order to have confidence in mitigation measures further consideration is required within an OLEMS of: • Monitoring and implementation of emergency management measures in the event of a bentonite breakout, Natural England advises based on an assessment of potential impacts to white-clawed crayfish and invertebrate species. • Reporting mechanisms for all bentonite breakouts within designated sites should be reported to Natural England within 24 hours and before clean-up operations begin. must be assessed and a suitable emergency plan put in place. • Restoration of the Natural England advises the HDD compound on the flood plain of the River Wensum is aligned restored in accordance with the River Wensum Restoration Strategy and the River Wensum SAC Conservation Objectives Supplementary Advice. • Restoration of appropriate soil/ground moisture conditions so that water levels are continuously at or just above the ground surface throughout the year. • Monitoring for bentonite breakouts throughout HDD beneath the relevant watercourses, with a commitment to cease drilling and enact remedial measures immediately upon discovery of a breakout. Natural England advises that a commitment to • Use of best available techniques and a precautionary methodology is included in the OLEMS. See Item I21 below.		No change at Deadline 2. As per our Appendix I2 advice at Deadline 2 we advise further information is needed within the OLEMS to address our concerns. Item remains under discussion.					
I3	5, 33	In order to future proof the project and enable long term environmental gains, Natural England highlights the importance of the Applicant committing to undertaking the following in combination with the EPS mitigation licences for bats, and badger and DCN DLL: • Pre-construction habitat surveys to identify if any changes to the draft mitigation licence is required. • Reasonable Avoidance Measures (RAMS) – GCN, also of benefit to other amphibians and also reptiles. • Post-monitoring surveys followed up by changes to mitigation where mitigation is proven to be ineffective.		No change at Deadline 2.					
I4	6	Natural England advises pre-construction surveys should ensure that a full assessment of the impacts can be made and the loss of breeding habitat for arable nesting species such as skylark are quantified. Further details for pre-consent are required on how impacts on the loss of nesting habitat can be mitigated for. Natural England advises details of mitigation should be provided in the OLEMS and secured in the DCO.		No change at Deadline 2.					
I5	7	The order limits are within 100 metres of two ancient woodlands (Smeeth Wood and Colton Wood). To ensure all impacts have been fully assessed the Zones of Influence (ZoI) for Ancient Woodland should be clearly stated within the OLEMS with consideration given to any potential edge effects.		No Change at Deadline 2.					
I6	8, 27-29, 59-61	Suitable mitigation measures should be put in place to minimise the impact to protected bird species during the breeding season. We advise the Applicant to commit to pre-construction surveys to inform adoption of appropriate mitigation measures. The OLEMS should be updated to include more detailed mitigation measures including (but not exclusively): works must avoid the main bird breeding season (March to August inclusive) and include vegetation clearance for skylark deterrent for sensitive habitats; pre-construction checks by an ECOW to confirm the absence of nesting birds; suitable buffer of 5m for any active nests encountered; breeding bird habitat creation and enhancement. We advise the area outlined for tree clearance in Weybourne Wood to be undertaken in the autumn (September to November inclusive) to avoid impacts during the main breeding season to the Schedule 1 species crossbill. If pre-construction bird surveys reconfirm the presence of breeding sand martins within the bank which would be impacted by construction, we advise suitable mitigation measures must be followed.		No Change at Deadline 2.					
I7	9	Alderford Common SSSI and the River Wensum are important foraging areas for several species of bats including barbastelle. Please also see points I28 to I32 for risks and issues raised by Natural England on this matter. Natural England advises that commitments should be made and secured by the Applicant to undertake updated pre-construction surveys where trees have been assessed as having potential to support roosting bats and are likely be impacted by the development works.		No Change at Deadline 2. We defer our response regarding issues relating to bats to Deadline 3.					
I8	11	Himalayan balsam was recorded within the DCO order limits and noted as predominately along watercourses such as tributaries of the Wensum at Swannington and on the Rivers Tud and Bure. We advise mitigation to avoid the spread of Himalayan balsam and other Invasive Non-Native Species (INNS) must be detailed in the OLEMS. Natural England advises further precautionary and preventative measures should be put in place during construction to minimise the risk of spreading American signal crayfish or associated crayfish plague and with the correct control measures put in place and fully detailed in the OLEMS. Weybourne Stream, River Glaven, River Bure, unnamed tributary of the rivers are of particular concern.		No Change at Deadline 2.					
I9	5, 12	Natural England is aware that a draft LONI has been obtained for badger. We advise the OLEM should secure pre-construction badger survey covering areas with previously confirmed setts, plus the whole of the DCO area (including previously inaccessible areas) and the 30m buffer and include those sets previously recorded as disused. We advise the findings from the pre-construction surveys, to be completed within two months of submitting the licence application should be used to identify if any changes to the draft mitigation licence requirement is required.		As per our Appendix I2 advice at Deadline 2, we advise clarification is provided that pre-construction badger surveys will extend into inaccessible areas of the DCO boundary. Item remains under discussion.					
I10	14, 58	At Deadline 1 Natural England has submitted best practice advice for mitigation measures to be adopted to mitigate disturbance impacts to the North Norfolk Coast (NNC) SPA pink footed goose feature. During examination we will work with the Applicant to secure this in the DCO.		No change at Deadline 2.					
I11	15, 32	Natural England advises all effort to deter reptiles from site and to encourage reptiles to move to adjacent sites should be implemented within the mitigation measures to reduce potential injury and/or harm to reptiles. We suggest manipulation of habitats to discourage reptiles from using the site should be employed in the first instance. We advise the creation of habitat to replace those habitats destroyed is included in the OLEMS. Pre-construction walkover surveys to identify any new areas of suitable reptile habitat which become established in the period between surveys and construction is to be carried out and detailed in the OLEMS.		Natural England has provided further advice in Appendix I2 advice at Deadline 2. Item remains under discussion.					
I12	I6, 50	We encourage the Applicant to work alongside Norwich Western Link [RR-065] to ensure mitigation covers all areas of concern and to achieve potential enhancement proposals for species and habitats. We emphasise the importance of minimising habitat loss, fragmentation and disturbance to a range of species and habitats including breeding birds, and bats. Please see new R&I item I37 in relation to Natural England's intention to gather evidence from next year to build an appreciation of whether notification of the Wensum Woodlands SSSI is appropriate.		No change at Deadline 2.					
I13	17, 23, 24. 34, 45	Due to current issues with partial and full discharges of DCO requirements relating to separate Ecological Management Plan (EMP) and Landscape Management Plan (LMP)for other offshore windfarm NSIPs, Natural England advises that the separate EMP and LMP documents are combined to form the Outline Landscape Ecological Management Strategy (OLEMS) in order to lesson the burden on all parties and avoid multiple consultations. Our Relevant/Written Representation highlights a number of points we would like to see included in the OLEMS and we will review upon submission. Natural England advises pre-construction walk over surveys are carried out to validate whether habitats have changed significantly since the 2020 and 2021 surveys and whether protected species surveys are required with details included in the OLEMS. Natural England also recommends that the OLEMS (to be submitted with the final DCO application) contains a commitment to post-construction surveying/monitoring for designated habitats and species that will be affected, such as hedgerows used by bats, grasslands, ponds, GCN, cereal field margins, etc. to ensure that mitigation/restoration measures have been be successful. If not we would advise that the onus remains on the Applicant until this is remediated		No change at Deadline 2.					
Document Used: [APP-108] 6.1.22 Chapter 22 Air Quality									

Point	Point Number(s) from Appendix I [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix I - Terrestrial Ecology [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
I14	18, 25	River Wensum SSSI and Colton Wood ancient woodland are sensitive to dust impacts. Colton Wood and the unnamed ancient woodland (near Ketteringham) are stated as having 'high' sensitivity. Natural England advises clarification is needed as to whether these sites will be further impacted. The Zones of Influence (ZoI) for Ancient Woodland should be clearly stated with consideration given to any potential edge effects.		No change at Deadline 2.					
Document Used: [APP-282] 6.5 Schedule of Mitigation and Mitigation Routemap									
I15	19	It is noted that reptile translocation may be required for three sites. If translocation is required, Natural England advises the receptor site would require reptile surveys to be carried out to establish the current reptile population at the relocation site and determine whether the site has capacity for an additional population. This survey will need to be secured in the OLEMs		No change at Deadline 2.					
I16	20, 30, 57	Natural England advises soft-felling should be carried out as a precautionary measure on those trees with potential (moderate and high) for roosting bats, even where bats have not been identified as roosting during surveys. Pre-construction surveys comprising a ground-level appraisal of bat roost suitability/potential, followed by bat roost emergence/re-entry surveys of any trees with High or Moderate bat roost potential which are to be removed or impacted upon should be included in the Schedule of Mitigation and Mitigation Route Map and detailed in the OLEMS. An EPS mitigation licence will still be required if future surveys record no evidence of bats roosting in trees in which roosting was previously recorded.		No change at Deadline 2.					
I17	21, 35-37	Pre-works and post-construction mitigation measures including construction exclusion zones are proposed in the Invertebrate Survey Report [APP-224] and includes *"Manipulation of dune communities to create mobile dune systems, with associated bare ground and habitat niches, are encouraged in other areas in the UK through the Dynamic Dunescapes initiative"*. Natural England advises these are detailed in the Schedule of Mitigation and Mitigation Route Map and incorporated into the OLEMS.		No change at Deadline 2.					
Document Used: [APP-302] 9.17 Outline Code of Construction Practice									
I18	22	Woodland/Hedgerow Protection has not included protection for individual trees, including veteran and TPO trees. Natural England advises this should be identified through the Tree Protection Plan. We advise The Code of Construction Practice should be informed by the Tree Protection Plan and Hedgerow Mitigation Plans and Method Statements (as specified in the Outline Ecological Management Plan and to be included in the OLEMS).		Natural England has provided further advice in Appendix I2 advice at Deadline 2 to the OCoCP. Item remains under discussion.					
Document Used: [APP-228] 6.3.20.15 Arboricultural Report and [APP-304] 9.19 Outline Ecological Management Plan									
I19	25, 18	Buffer zones for ancient woodlands have not been specified in the EMP [APP-304]. Natural England advises that buffer zones should be included to reflect the habitat and potential impact pathways from development. Where assessment shows impacts are likely to extend beyond this distance, such as the effect of air pollution from development then there may need a larger buffer zone. We advise that the management of buffers should be incorporated into the OLEMS.		No change at Deadline 2.					
I20	26, 69	The Arboricultural Report [APP-228] is not an Arboricultural Impact Assessment. Natural England advises a full tree survey within the entire DCO boundary is required prior to work on the onshore cables commencing. This should highlight any ancient/veteran trees to avoid and then using micro-siting and HDD to avoid these trees and should inform an arboricultural impact assessment. We advise tree root protection zones are included in the OLEMS and should be secured. Where management of trees is required, we advise this must be completed by a qualified arborist to ensure tree health is not impacted. We would welcome a secured commitment by the Applicant to avoid construction activities within veteran tree buffer zones.		No change at Deadline 2.					
Document Used: [APP-129] 6.2.18 Chapter 18 Water Resources and Flood Risk									
I21	38	Natural England advises that further clarity is provided in the documents provided on HDD tolerance monitoring, how quickly bentonite release can be stopped, or an assessment of a worst-case scenario bentonite breakout considering extent, timings, and environmental impacts. Sediment increases as a result of bentonite breakout should be considered with regards to lamprey species which are present in several watercourses including Swannington Beck where its 'high sensitivity would combine with a low magnitude of effect to create an impact of moderate adverse significance' as a result of increased sediment supply. We advise the potential impact of an HDD breakout on features of interest and their supporting habitats should be assessed. See item I2 above.		Natural England has provided further advice in Appendix I2 advice at Deadline 2. Item remains under discussion.					
Document Used: 6.2.19 Chapter 19 Land Use, Agriculture and Recreation									
I22	39	The study area also crosses two Higher countryside stewardship scheme (CSS) agreements, and ten Middle CSS agreements. We advise the Applicant must consult the landowner and, where required, the Rural Payments Agency at the earliest opportunity to discuss the impacts to schemes. Mitigation should also be provided to ensure that species of conservation note are not unduly impacted by the projects.		No change at Deadline 2.					
I23	40	Open cut techniques will cross several Public Rights of Way (PRoW). Though trenchless crossing methods will be used to cross the Norfolk Coastal Path it is noted that access restrictions may occur during the short term. Natural England queries how assurances can be made to ensure that any diversions of recreational routes do not impact upon protected species or habitats.		As per our Appendix I2 advice at Deadline 2 we advise further information is needed within the OLEMS. Item remains under discussion.					
I24	41, 44	Mitigation measures include private agreements with landowners regarding any permanent losses of agricultural land. However, it is not clear how these private agreements will mitigate for the permanent loss of the agricultural land. Natural England seeks clarification as to what the opportunities are for additional soil mitigation. Will additional pre-construction surveys be undertaken If additional mitigation measures and agricultural surveys, to determine whether the land associated with the onshore substations is Grade 3a or 3b and if mitigation measures are sufficient to reduce impacts to acceptable levels.		No change at Deadline 2.					
I25	43	The cumulative impacts during construction on soil degradation and potential loss of soil due to erosion are given as minor adverse as each project has committed to best practice mitigation. However, we encourage some communication between plans/projects to ensure mitigation covers all potential areas of concern from cumulative impacts.		No change at Deadline 2.					
Document Used: [APP-216] 6.3.20.3 Static Bat Detector and Transect Survey Report and [APP-223] 6.3.20.10 Bat (Roosting) Survey Report									
I26	9, 47	The crossing techniques for the areas closest to Alderford Common (Reepham Road and School Road) have not been confirmed. We advise a commitment to the collection of further pre-construction survey data is required to better understand potential impacts to commuting and foraging routes functionally linked to the Alderford Common SSSI (noted for roosting bats) which may be impacted through open cut trenching. And to ensure that mitigation measures remain fit for purpose.		No change at Deadline 2. We defer our response regarding issues relating to bats to Deadline 3.					
I27	48, 53	It is unclear why only a 50m buffer has been applied for the Norfolk Biodiversity Information Service (NBIS) data search for bats. Natural England advises given the mobile nature of bats the proposed 50m buffer requires further justification. We query whether Core Sustenance Zones (CSZ) have been considered for other potentially important areas and other bat species (other than barbastelle). Alderford Common SSSI lies within 180m west of the DCO boundary, with good connectivity between the site and the DCO boundary. We advise that connecting and supporting habitats should be considered and advise using CSZ when assessing impacts to bats and their habitats, consulting MAGIC maps to identify the presence of any protected species licence in the boundary, or within the zone of influence of the proposed development. Natural England advises that until this is considered further by the Applicant we are unable to agree with the conclusions they have drawn.		No change at Deadline 2. We defer our response regarding issues relating to bats to Deadline 3.					
I28	49	Natural England advises loss of habitat (maternity and hibernation roosts) for barbastelle bats should be minimised, particularly in the area around the River Wensum, Lenwade, Weston Longeville, Swannington, Ringland that have been identified for its significance for important colonies of bats plus important foraging and commuting routes. Please also see new R& I item I38 below in relation to the potential notification of Wensum Woods SSSI. Impacts must be minimised within this area to avoid irreversible damage to habitats and therefore species. Sufficient mitigation should be included in the OLEMS and secured with post-monitoring surveys completed.		No change at Deadline 2. We defer our response regarding issues relating to bats to Deadline 3.					
I29	51	Scotchwood Hills, is an important area for foraging, commuting and roosting bats, in particular barbastelle in combination with the proposed Western Link. We recommend trenchless technique should be considered here to minimise impacts to important colonies of bats.		No change at Deadline 2. We defer our response regarding issues relating to bats to Deadline 3.					
I30	47, 52, 54, 55	It is unclear why the results of the bat static surveys were not used to inform assessments of trees where static detector survey data suggest roosts within close proximity to the DCO boundary. We advise that further clarification whether (and if not why) areas where potential maternity roosts /trees with potential to support roosting bats within close proximity to the DCO boundary and those that may be functional linked e.g. Alderford Common SSSI were surveyed. Also of note are the registration times at Weybourne Woods suggesting there may be roosts located in the vicinity. There will be removal of trees within this area which could impact upon commuting and/or foraging and roosting bats and advised that this further considered by the Applicant to ensure that the necessary mitigations measures can be adopted.		No change at D2. We defer our response regarding issues relating to bats to Deadline 3.					

Point	Point Number(s) from Appendix I [RR-063]	Taken from Natural England's Relevant and Written Representations SEP AND DEP Appendix I - Terrestrial Ecology [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
I31	56	Natural England advises pre-construction bat roosting surveys should consider potential impacts to existing roosts within habitats as well as trees and structures and should include hibernation roosts. This should be secured in the OLEMS.		No change at Deadline 2. We defer our response regarding issues relating to bats to Deadline 3.					
Document Used: [APP-220] 6.3.20.7 Onshore Ecology Desk Study									
I32	64	It is unclear whether the online resources used to inform the desk study search area includes the use of the Impact Risk Zone layer to inform the decision. Natural England seeks further clarification. Without this information, we are unable to have confidence in the conclusions drawn by the Application		No change at D2					
Document Used: [APP-221] 6.3.20.8 Reptile Survey Report									
I33	65	Several reptile surveys were subject to suboptimal weather with temperatures outside of the optimal conditions and many surveys carried out in overcast conditions. Several refugia were destroyed and two of the 15 sites surveyed sites were located outside of the DCO boundary. Natural England advises clarity is required regarding the completeness and validity, and therefore the robustness, of the survey data used to inform the Application. We also advise sufficient mitigation must be employed and detailed in the OLEMS.		As per our Appendix I2 advice at Deadline 2 we advise further information is needed within the OLEMS. Item remains under discussion.					
Document Used: 6.3.20.13 Appendix 20.13 - Riparian Mammals (Water Vole and Otter) Survey Report									
I34	68	Water vole presence (water vole feeding sign) is noted near Little Barningham along a stream. The method of crossing at this section is not detailed as open cut or HDD. Natural England seeks clarification of the type of habitat at this area and the crossing method for this location.		No change at D2.					
I35	31	Natural England advises a 10m Construction Exclusion Zone is established/secured within 10m of the watercourses providing suitable habitat for riparian mammals and detailed in the OLEMS [APP-226].		No change at D2.					
Document Used: [APP-219] 6.3.20.6 Initial Biodiversity Net Gain Assessment.pdf									
I36	62-63	Natural England welcomes SEP and DEP's voluntary commitment to achieve Biodiversity Net Gain and reminds the Applicant that the mitigation hierarchy should be adhered to in the first instance with BNG additional to this. Natural England considers it is important that a landscape scale approach is applied with a clear strategy of how measures can be delivered across a wider area beyond the compulsory purchase corridor of the route. Measures to create new, restore existing and link severed or isolated habitats across the wider area should be incorporated, with the focus on wetland and woodland habitats. We welcome that BNG details are being considered for hedgerows. Natural England advises there may be opportunities to enhance habitats for reptiles. We recommend restoration of important habitats, such as hedgerows and SSSIs (including the River Wensum and Alderford Common SSSIs) should be focused on for BNG. We emphasise the importance of enhancing and creating new connectivity between habitats.		No change at D2.					
Additional Issues following Relevant and Written Reps Submission of 14 November 2022.									
I37	New Issue at D1	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. There is evidence in the wider area to show that this is a nationally important area for barbastelles (roosts, foraging and commuting) extending east to Drayton Drewary, north to Reepham, west to Swanton Morley, down to North Tuddenham and south to East Tuddenham. The inclusion of the Wensum Woodlands SSSI on the shortlist is not a commitment by NE to notify a SSSI, only to investigate the site further. The spatial extent of the SSSI will be dependent on survey data collected by Natural England. The process in notification decision will take several years to complete. 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. Also as above we encourage coordination with the Norwich Western Link application by Norfolk County Council, noting their survey information acquired is in the public domain: https://www.norfolk.gov.uk/roads-and-transport/major-projects-and-improvement-plans/norwich/norwich-western-link/timeline.		No change at D2.					