

Natural England's key to RAG status	Risk
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 that the project will not affect the integrity of an SAC/SPA and/or comply fully with the Environmental Impact Assessment requirements and/or avoid significant adverse effect on landscape/seascape, unless the following are satisfactorily provided: new baseline data; significant design changes; and/or significant mitigation; Natural England feels that issues given Red status are so complex, or require the provision of so much outstanding information, that they are unlikely to be resolved during examination, and respectfully suggests that they be addressed beforehand.	
Amber Natural England considers that if these issues are not addressed or resolved by the end of examination then they would become a Red risk as set out above. Likely to relate to fundamental issues with assessment or methodology which could be rectified; preferably before examination.	
Yellow These are issues/comments where Natural England doesn't agree with the Applicant's position or approach. We would flag these at the PEIr stage with the view that they would be addressed in the Application. But otherwise we are satisfied for <u>this particular project</u> that it will not make a material difference to our advice or the outcome of the decision-making process. However, it should be noted that this may not be the case for other projects. Therefore it should be noted by interested parties that just because these issues/comments are not raised as part of our Relevant Representations in this instance it should not be understood or inferred that in other cases or circumstances Natural England will take this approach. Furthermore, these may become issues should further evidence be presented.	
Green Natural England supports the Applicant's approach.	
Issues Key Vellow	

issues key	
Yellow	
These are issues/comments that apply to East Anglia ONE NORTH (EA1N) only	
Blue	
These are issues/comments that apply to East Anglia TWO (EA2) only	
Clear	
These are issues/comments that apply to both projects	



Point	Natural England's Relevant Representation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
Offsho	ore Ornithology (Appendix A)			
1	Red-throated diver displacement impacts on Outer Thames Estuary SPA		At a workshop 28.07.20 it was agreed the Applicants will update the RTD note. Document will be submitted by the Applicant at Deadline 3.	
2	Collision Risk Modelling (CRM) parameters		Workshop on 22.10.20 discussed this issues. Formal comments will be submitted by NE at Deadline 2.	
3	Cumulative and in-combination assessments (displacement and CRM);		Workshop on 28.07.20 initiated an updated cumulative and in-combination assessment. Document will be submitted by the applicant and Deadline 3.	
4	Scale of predicted cumulative and in-combination collision impacts and requirement for mitigation.		At the SPA workshop 28.07.20 it was agreed the Applicants will update the RTD note. Document will be submitted by NE at Deadline 3. Workshop on 28.07.20 initiated an updated cumulative and in-combination assessment. This will be submitted by the applicant and Deadline 1.	
5	Post-construction monitoring.		Ongoing discussions - NE notes there will be an updated in principle monitoring plan submitted by the applicant at Deadline 3.	
Marin	l e Mammals (Appendix B)			



Point	Natural England's Relevant Representation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
6	Need for regulatory mechanism to manage multiple Site Integrity Plans (SIPs) across offshore wind farm projects.			
7	Frequency of piling and UXO activities		There is ongoing discussions on this matter. More comments on this matter can be seen in NE Deadline 1 Appendix G1b (Point 11).	
Terres	trial Ecology (Appendix C)			
8	Potential for supporting habitat loss within the Sandling SPA		The Applicant provided a draft SPA crossing method statement to NE on 15.09.20. NE responded on 07.10.20 and advised that suitable mitigation measures can be adopted to minimise the impacts of open cut trenching to an acceptable level. However, there are remaining concerns that we believe should be addressed in the consent phase in order to support the open trenching technique.	



Point	Natural England's Relevant Representation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
9	Clarification of redline boundary for cable corridor		In Appendix C1b response, Natural England notes that the Applicant agreed, through the SoCG process, to undertake an assessment of cumulative impacts with the Sizewell C project. Natural England have also requested to review the Ecological Management Plan (EMP) and would welcome further consultation on any outline EMP during examination. Subsequently, The Applicant has further stated (written comments on NE comments to applicant comments on NE RR received 23.09.20) that additional terrestrial assessment of cumulative impacts with Sizewell C is not required. Natural England will advise when further information is received.	
10	Potential for disturbance to designated breeding features of Sandlings SPA		Following a workshop on 16.07.20 the Applicants have updated the Outline SPA Crossing Method Statement.	
11	Request for SNCB consultation on management plans		Natural England have advised the applicant that we would welcome further consultation on any outline EMP during examination.	
Landso	ape and Visual Impact Assessment (LVIA) – Terrestrial aspects of the projects	ct (Appendix	k D)	



Point	Natural England's Relevant Representation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
12	Need for more information on construction phase activities and subsequent impacts to landscape and Suffolk Coast and Heaths AONB.		Natural England have liased with the Applicant on this matter, this is outlined in NE Deadline 1 Annex D1b. NE notes no commitment from applicant to an anticipated timetable/construction activities schedule - this would be made post consent. The actual impact of the construction phase on the AONB could be more difficult to assess. Therefore consideration could be given to key elements at the same tme such as ducting for both projects especially at designated sites including landscape.	
Seasca	pe and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements	of the proje	ct (Appendix E)	
	Night-time effects of navigational lighting have not been assessed for rural locations		Deadline 1 Appendix E1b NE Response to Applicants comments (Point 3.4.1.) and outcome of Jul workshop - Resolved - NE welcomes the Applicant's commitment to reduce the intensity of the aviation lighting to 200cd whenever atmospheric conditions permit.	
14	Significant cumulative effects with the EA2 OWF project.		Deadline 1 Appendix E1b NE Response to Applicants comments (point 3.11.1) - Cumulative Effects with EA2 Ongoing: The values presented by NE updated to view height of 6.5m.	
Develo	pment Consent Order, Deemed Marine Licences and related certified docu	mentation	(Appendix G)	



Point	Natural England's Relevant Representation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
15	Definitions of commence, and offshore preparation are not appropriate as they may allow significantly damaging works to be undertaken prior to approval of monitoring, mitigation or construction plans.		The Applicant stated [AS-036] that they will update the definition of "offshore preparation works" in the next version of the draft DCO. There is ongoing disagreement with regards to the UXO detonation timings. More comments can be seen at NE Deadline 1 Annex G1b.	
16	Natural England have requested a range of conditions to control the noise impacts from EA1N and EA2. Most notably conditions are required to ensure no concurrent piling or concurrent UXO high order detonations in any one day.		The applicant [AS-036] considers that the SIP is adequate to ensure these mitigations. NE disagree but have noted UXO detonations could be clustered around a 5km point.	
17	Cable protection should not be permitted to be deployed over any area over the full lifetime of the project.		The Applicant stated [AS-036] that they will review a paper produced by Natural England which offers guidance on the expected marine licensing requirements. This is an ongoing issue.	
18	Unexploded ordnance (UXO) is not appropriately described within the Development Consent Order (DCO)/Deemed Marine Licences (DML)s		This issue is under discussion, please see NE Deadline 1 Annex G1b.	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
1. Red	-throated diver displacement impacts on Outer Thames Estuary SPA (OTE S	PA)		
1	The EA2 boundary has been amended since the Preliminary Environmental Information Report (PEIR) consultation and is now more than 8km from the SPA boundary. This change was for seascape reasons, but also reduced impacts on the SPA. However based on studies conducted at other windfarms, the extent of displacement effects is likely to exceed 8km. Therefore the EA2 array will result in a long-lasting reduction in the availability of diver habitat in part of the SPA and a change of the distribution of divers within the SPA, and result in an adverse effect on integrity (AEOI) from the project alone. The AEOI the boundary should be avoided so no part of the array is within 10 km of the boundary of the SPA.		At a workshop 28.07.20 it was agreed the Applicants will update the RTD note. Document will be submitted by the Applicant at Deadline 3. Further comments on this issue can be found in NE Deadline 1 Appendix A1b (Point 1) and Appendix A4.	
2	The level of vessel traffic associated with site maintenance has been quantified. However, the impacts of increased traffic on RTD have not been considered, these need to be discussed and mitigated.		Natural England has liased with the Applicant on this matter and have suggested mitigation of impacts on SPA as part of our dicretionary advice service (DAS). Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 2) and Appendix A4.	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
3	No consideration has been given to the assessment of displacement from the array itself. Perhaps this is because the Applicant has only considered that potential impacts extend to 4km only. When using a 10km buffer around the array the overlap with the SPA is 4.4 km2, which although is a small proportion of the area of sea within the SPA, it needs to be considered as part of the in-combination effect together with other plans and projects, including EA1N.		At a workshop 28.07.20 it was agreed the Applicants will update the RTD note. Document will be submitted by the Applicant at Deadline 3. Further comments on these issues are in NE Deadline 1 Appendix A1b (Point 1) and Appendix A4.	
4	Natural England agrees that there is likely to be no adverse effect alone as a result of RTD displacement due to cable laying (cable laying operations are of a temporary nature). We are unable to rule out AEOI in-combination from displacement therefore a seasonal restriction in cable laying activity should put be in place.		Ongoing discussion. Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 3 and 5) and Appendix A4.	
5	The focus on predicted mortality and the effect this would have on the abundance of RTD within the SPA is not the only issue for assessing impacts on the SPA. The change in distribution of divers due to the close proximity of the array to the OTE SPA also needs to be considered. Also, the mortality rates are a relatively crude method of capturing a range of potentially deleterious effects that could arise from displacement, including reduced fitness for migration and reduced productivity during the breeding season.		At a workshop 28.07.20 it was agreed the Applicants will update the RTD note. Document will be submitted by the Applicant at Deadline 3. Further comments on these issues are in NE Deadline 1 Appendix A1b (Point 1) and Appendix A4.	
2. Coll	ision Risk Modelling (CRM) parameters. Document used:			



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
6	Natural England recommends that the Applicant takes a more narrative approach to the assessment, and considers the Option 1 outputs for the species identified in our relevant representation in the context of the relevant Option 2 95% CIs, as part of a more range-based approach to consideration of CRM impacts. This should consider the mean/central predicted collision figures and those based on the range of predicted figures resulting from the Applicant's consideration of the uncertainty/variability in the input parameters.		A workshop on 22.10.20 discussed this matter. Formal comments will be submitted by NE at Deadline 2 once the document is formally submitted into examination. However, further cooments on this issue are provided in NE Deadline 1 Appendix A1b (Point 13). The Applicant has committed to an increase in air draught height of 2m from 22 to 24m above	
7	using Option 2, which is based on generic boat based estimates of flight height.		MHWS. At the 28.07.20 workshop we advised this should be raised further. Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 14).	
8	Natural England welcomes the use of our recommended Avoidance rates and nocturnal activity factors, and accept that there is an argument to present the Applicant's preferred options alongside. However, given the significant difference in predicted mortality when Option 1 is used, we suggest that this demonstrates that overall assessments of collision risk may not be precautionary enough.		A workshop on 22.10.20 discussed this matter. Formal comments will be submitted by NE at Deadline 2 once the document is formally submitted into examination. However, further comments on this issue are provided in NE Deadline 1 Appendix A1b (Point 18).	
3. Cum	ulative and In-combination Assessments			



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
9	The cumulative operational displacement assessment totals for RTD are based on an incomplete data set. Table 12.37 excludes a number of projects. These missing projects will reduce the confidence in the assessments and result in a significant under-estimation of the cumulative/in-combination assessments.		Workshop on 28.07.20 initiated an updated cumulative and in-combination assessment. Document will be submitted by the Applicant and Deadline 3. But further comments on this issue are in NE Deadline 1 Appendix A1b (Point 19) and Appendix A4.	
10	The contribution that EA2 makes is clear in Table A12.3.10. EA2 alone contributes 2.8% of the cumulative total, whereas all other Tier 4 projects combined (i.e. excluding EA2 but including EA1N) contribute 12.3% of the relative contribution to potential displacement. Although the approach considering the relative contribution to the cumulative total is helpful, and identifies that contribution made by EA2 is not insignificant, it does not adequately consider the overall level of cumulative displacement. This is due to displacement from a number of projects not being included.		The Applicant will continue to engage with NE on RTD matters throughout the examination period. Document will be submitted by the Applicant at deadline 3. But further comments on these issues are in NE Deadline 1 Appendix A1b (Point 21 and 23) and Appendix A4.	
11	The assessment includes several sources of precaution, but it includes assumptions that may not reflect the full extent of diver displacement. Natural England welcomes that assumptions around 100% displacement out to 4km are used, but we know this may underestimate the degree of displacement if the extent of displacement is >10km.			



Point	Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
12	Due to the Applicant's worst case scenario assessment of minor adverse, and considering that some projects are not included in the assessment, Natural England is unable to rule out a significant adverse effect for cumulative operational displacement on RTD at the EIA scale.			
13	The cumulative auk (razorbill and guillemot) operational displacement assessment totals are based on an incomplete data set. Wind farm projects are missing from the assessments.		The Applicant has agreed to update the cumulative assessment tables to include relevant information from other projects. The Applicant will submit this doucment at deadline 1. Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 26).	
14	AEOI can be ruled out for the razorbill and guillemot features of the Flamborough and Filey Coast SPA (FFC SPA) for impacts in-combination with other plans and projects when Hornsea 3 was included in the in- combination total.		Workshop on 28.07.20 initiated an updated cumulative and in-combination assessment. This will be submitted by the Applicant and Deadline 1. Further comments on this issue are in NE Deadline	
15	The cumulative annual gannet collision risk prediction of 2,607 (Table 12.42) differs from the totals agreed at the end of the Norfolk Vanguard examination, which was 2,735. We seek clarification on why these two totals differ.		1 Appendix A1b (Point 27 and 28).	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
16	Natural England acknowledges that a higher avoidance rate of 99.5% for gannet has been recommended by Bowgen & Cook (2018) and that this would significantly reduce the cumulative total. Natural England and the other SNCBs are currently considering our response to the recommendations in Bowgen & Cook (2018). Our current advised avoidance rates are those set out in SNCBs (2014).		Matter closed after meeting on 20.06.20. The Applicant included higher avoidance rates as recommended.	
17	It is acknowledged that if the higher avoidance rates in Bowgen & Cook (2018) are used, the overall impact significance will be reduced. However, Natural England advised that a significant (moderate adverse) impact on gannet at the EIA scale could not be ruled out due to cumulative collision totals at the end of the Vanguard hearing, and therefore adding more collisions from Boreas, the East Anglia projects and Hornsea 4 will not change this position.		The Applicant has updated cumulative and in- combination assessment. This will be submitted by the applicant and Deadline 1.	
18	The kittiwake cumulative collision risk assessment in Table 12.43 differs to the totals agreed by Natural England at the end of the Vanguard hearing. This agreed total was 4,114. There will also be a need to include the figures from Hornsea 4's PEIR. Before these figures are added there is already a 2.5% increase above baseline mortality.			



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
19	Whilst Natural England notes that some projects have built out to less than their consented capacity, we do not accept that it is appropriate to revisit the cumulative collision risk whilst consents for unused capacity remain in place and in the absence of re-run collision risk assessments using the built turbine parameters.		Ongoing disagreement	
20	Taking into account some elements of potential precaution will lead to a reduction in mortality estimates. There are elements of the assessment which could result in an underestimate of collision risk. There is also the critical issue of variability in all of the input data, not least in bird density.		Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 37). Ongoing disagreement.	
21	There are elements of the cumulative assessment that result in a higher mortality total, but we have concerns about use of Option 2 and the fact that much higher predicted collisions are predicted when using Option 1. However, we agree that the cumulative impact on lesser black-backed gull at the EIA scale is minor adverse (not significant).		Ongoing disagreement	
22	Natural England notes that it is suggested that using a nocturnal activity factor of 3 (50%) in collision risk modelling is likely to be an overestimate of nocturnal activity. We advise that a range between 25% and 50% are presented with the assessment.		The Applicant altered estimates following our Written Representations response on 27.01.20. An updated document will be submitted by the Applicant at Deadline 1. We will provide further comments on this matter.	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
23	The Population Viability Analysis (PVA) model outputs predicted populations being up to 7.7% smaller using the density dependent model, and up to 21.5% smaller than the un-impacted scenario using density independent outputs based on an annual mortality of 900.		Workshop on 22.10.20 discussed this issues. Formal comments will be submitted by NE at Deadline 2. Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 44).	
24	Natural England disagrees with the summary that concludes no greater than minor adverse significance for all species. At the end of Norfolk Vanguard we advised significant adverse effect at EIA for cumulative collision for gannet, kittiwake and great black-backed gull. Since then more birds have been added to these totals from Boreas, EA1N, EA2 and also Hornsea 4, and as a result our position remains unchanged.		Ongoing discussion.	
4. Scal	e of predicted cumulative and in-combination impacts and requirement			
25	<ul> <li>For EIA we have been unable to rule out a significant adverse effect for cumulative operational impacts on:</li> <li>kittiwake, gannet and great black-backed gull;</li> <li>guillemot, razorbill and red-throated diver</li> <li>For HRA we have been unable to rule out adverse effect on integrity on:</li> <li>kittiwake from FFC SPA;</li> <li>guillemot and razorbill at FFC SPA;</li> <li>lesser black-backed gull from Alde-Ore Estuary SPA due to incombination collision impacts;</li> <li>red-throated diver from Outer Thames Estuary SPA due to incombination displacement effects.</li> </ul>		At the SPA workshop 28.07.20 it was agreed the Applicants will update the RTD note. Document will be submitted by NE at Deadline 3. Workshop on 28.07.20 initiated an updated cumulative and in-combination assessment. This will be submitted by the Applicant and Deadline 1. Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 46).	
5. Post	t consent monitoring.			



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
26	There is a reference made to supporting "joint industry projects or alternative site based monitoring of existing seabird activity inside the area(s) within the Order Limits in which it is proposed to carry out construction works with its potential wider benefits." It is not clear what is being proposed or what the mechanism is to ensure that appropriate monitoring is undertaken. We recommend that the most significant area or areas of ornithological uncertainty is identified, and an in-principle monitoring plan is agreed.		Ongoing discussions - NE notes there will be an updated in principle monitoring plan submitted by the Applicant at Deadline 3.	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix A - Offshore Ornithology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
27	Natural England welcomes the statement in the In Principle Monitoring Plan that the Applicant will engage with stakeholders and that the methodology would be developed through the Ornithological Monitoring Plan (required under Condition 14(1) (I) of Schedule 9 and 10 of the DCO). We agree with the Applicant that the aims of monitoring should be to reduce uncertainty for future impact assessment and address knowledge gaps. However, we disagree with the Applicant's assertion that displacement effects on RTD would not create impacts of more than minor adverse significance during any biological season during construction and operation phases. Validating the extent of RTD displacement will be the main priority for any post-consent monitoring. Natural England also disagrees that the risk to birds from cumulative collisions with wind turbines across all windfarms considered is assessed as no greater than minor adverse significance for all species. For kittiwake, gannet and great black-backed gull we are unable to rule out significant impact cumulatively.		Ongoing discussions - NE notes there will be an updated in principle monitoring plan submitted by the Applicant at Deadline 3. Further comments on this issue are in NE Deadline 1 Appendix A1b (Point 47).	
	Added since Relevant Reps submission:			
32	In our Relevant and Written Representations, Natural England raised the issue of the potential in-combination impacts from EA1N and EA2 on lesser black-backed gull LBBG from the Alde-Ore Estuary SPA from collision.		Further comments on this issue are in NE Appendix A2 Deadline 1.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix B - Marine Mammals	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
Docum	nent Used: 6.1.11 EA2 Environmental Statement Chapter 11 Marine Mamma	ls		
1	The phrases 'same day' and '24 hour period' are used interchangeably throughout the marine mammal chapter and associated documentation when they are not the same thing. If this follows through to the assessment stage Natural England considers a clarification note may be required as to the intended wording and any consequences for either the EIA or HRA.		The Applicant has explained this issue in AS-036. This issue has been resolved.	
Docum	nent Used: 5.3 EA2 Information to Support Appropriate Assessment Report			
2	Natural England welcomes the commitments from the Applicant listed here and considers they should be specifically conditioned on the face of the deemed marine licence (DML), particularly to ensure there is no concurrent piling between EA1N and EA2.		There is ongoing discussions on this matter. More comments on this matter can be seen in NE Deadline 1 Appendix G1b (Point 11) and Appendix B1b.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix B - Marine Mammals	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
3	The Applicant has stated that disturbance of harbour porpoise will not exceed 20% of the seasonal component of the site at any one time, however, the 20% threshold is for disturbance of harbour porpoise in any given day. Detonation of 2 unexploded ordnance (UXO) in a 24 hour period could exceed the 20% threshold and disturb harbour porpoise from up to 32% of the winter area of the site. NE disagrees with the conclusion drawn that there is no significant disturbance or potential adverse effect on the SNS SAC if more than 1 UXO is detonated on any given day. Natural England considers that UXO High order detonations and impact piling events should be limited to 1 across both projects on any given day and this should be secured in the DMLs through condition.			
4	One piling event disturbs harbour porpoise from 16% of the winter component of the Southern North Sea and 2 piling events on any given day will result in up to 32% of the SAC winter area being disturbed, therefore exceeding the 20% threshold. Natural England's views are the same as above.			
5	As per previous comments, if 1 UXO detonation and 1 piling event were to occur on the same given day as described in paragraph 626, the area of the winter component of the SNS SAC that harbour porpoise would be disturbed from would exceed the 20% threshold.			
Docum	nent Used: 8.17 EA2 In-principle Southern North Sea SAC Site Integrity Plan			



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix B - Marine Mammals	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
6	Natural England welcomes the commitments from the Applicant listed here and considers they should be specifically conditioned on the face of the DML, particularly to ensure there is no concurrent piling between EA1N and EA2.			
7	A mechanism needs to be developed by the regulators to ensure continuing adherence to the statutory nature conservation bodies (SNCB) thresholds over time. Should potential exceedance of the thresholds occur, a process for dealing with this issue needs to be in place – the affected developers will need to work together with the regulator and SNCBs to prevent adverse effect on the Southern North Sea (SNS SAC). Until the mechanism is developed, Natural England are unable to advise that this approach is sufficient to address the in-combination impacts described below and therefore the risk of Adverse Effect on Integrity (AEOI) on the SNS SAC cannot be fully ruled out.			



Point	EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
Docun	nent used: 5.3 EA2 Information to Support the Appropriate Assessment Repo	ort		
1	If an open cut trench method is selected habitat restoration should be implemented to compensate and improve supporting habitat lost. Any scrub removed should be reinstated by planting hawthorn and blackthorn. Areas of acid grassland should be created as heathland by ensuring that soil removed is appropriately stored, reinstated and capped with sandy topsoil. Locally sourced heather seed should be sown across the restoration area to recreate pioneer heath. The Applicant should provide information on the areas to be restored and methodology including timescales and species. The applicant should consider opportunities for net gain in improving and extending relevant and supporting habitats. We recommend consultation with the landowner and RSPB is sought regarding restoration works and net gain opportunity.		The Applicant provided a response to NE on 29.09.20 to state biodiversity Net Gain is not a policy requirement for NSIPs. However NE understands the Applicants will submit an Ecological Enhancement Clarification note at Deadline 1 which we will respond to.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
2	Natural England reiterate the preference for HDD under the Sandlings SPA to avoid supporting habitat loss, which will take some time to return to its previous condition. Should HDD be used, sufficient detail on methodology and safeguards to prevent a drilling mud outbreak should be produced. Should a bentonite outbreak occur the HDD document should specify that Natural England will be contacted within 24hours and prior to the commencement of any clean-up operations, as the clean-up may on occasion be more damaging than the outbreak. We advise that an outline bentonite frackout document should be provided during examination for each of the HDD locations.		The Applicant provided a draft SPA crossing method statement to NE on 15.09.20. NE responded on 07.10.20 and advised that suitable mitigation measures can be adopted to minimise the impacts of open cut trenching to an acceptable level. However, there are remaining concerns that we believe should be addressed in the consent phase in order to support the open trenching technique. Further comments on this issue can be found in NE Deadline 1 Appendix C1b and Appendix C3.	
Docum	nent used: 5.4 EA2 Consents and Licences Required under other Legislation		<b>-</b>	
3	Natural England advises that should altered/new proposals be planned within a Site of Scientific Interest (SSSI), which are not currently considered as part of the DCO and Application then an assent may be required under the Wildlife and Countryside Act 1981 (as amended) from Natural England.		This has been noted by the Applicant [AS-036].	
Docum	nent used: 6.1.22 EA2 Environmental Statement Chapter 22 Onshore Ecology	1		



Point	EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
4	Consideration should be given to Leiston to Aldeburgh SSSI and coastal vegetated shingle in the case of a bentonite or drilling mud outbreak. Information should be provided on engineering design, depth and break out contingencies. This should be provided in the form of outline plan and secured in the DCO/DML		Natural England has provided advice under our discretionary advice service (DAS) to applicant on the Outline Landfall Construction Method Statement. Further comments on this issue can be found in NE Deadline 1 Appendix C2. NE are satisfied with the detail provided regarding bentonite breakout.	
5	We advise that all nationally protected species, are considered of at least moderate importance.		The Applicant discovered an error and have informed Natural England that a review of impacts on misclassified species is being produced within a clarification note which will be submitted as early as possible during the examination.	
6	Within the Leiston to Aldeburgh SSSI the variety of water bodies and terrestrial habitats provides suitable breeding and hunting areas for many species of dragonfly and damselfly, including the nationally scarce hairy dragonfly Brachytron pratense. We advise consideration of this species, as previously requested in Natural England's advice letter dated the 26th March 2019.		The Applicant committed to undertaking an assessment of impacts upon hairy dragonfly to be submitted and agreed as a clarification note. This will be submitted by the Applicant during examination and we will provide our formal comments at that time.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
7	The impact on coastal habitat from bentonite and drilling mud break outs should be considered.		Natural England has provided advice under our discretionary advice service (DAS) to applicant on the Outline Landfall Construction Method Statement. Further comments on this issue can be found in NE Deadline 1 Appendix C2. NE are satisfied with the detail provided regarding bentonite breakout.	
8	The Hundred River feeds into Sandlings SPA and we expect to see an assessment of alternatives to include HDD under this water course and impacts outlined. We welcome the commitment to reinstate and improve habitats.		NE continue to advise the Applicant that the HDD method to cross the Hundred River would be favourable. The Applicants are preparing further information on this issue as they claim HDD is not feasible due to space constraints.	
9	Any works that directly impact upon badgers should be subject to mitigation, compensation and/or a protected species license from Natural England to avoid an offence under the Wildlife and Countryside Act 1981 (as amended). We refer to the Planning Inspectorates advice note 11 which advises early engagement with Natural England. We advise that an outline plan is provided.		The Applicant has agreed to submit an Ecological Management Plan which we will review once submitted into examination. We also recommended that the Applicant applies for Protected Species Licenses as early as possible.	
10	Mitigation should include micro-siting of cable route to avoid badger setts, and mitigation and compensation as outlined within Natural England standing advice. This should all be included in an outline plan during examination.		The Applicant has stated [AS-036] that the Ecological Management Plan will include provisions for badger mitigation.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
11	We welcome the mitigation prescribed for bats in principal, but advise that potential impacts to bat habitat should be clearly mapped with roosting, foraging and commuting areas shown in relation to the redline boundary. As consistent with Natural England's previous advice letter the 26th March 2019. The Applicant should also consider any in combination impacts with proposed development at Sizewell C and any other foreseeable plans or projects. This should be provided as an outline plan as part of the examination.		In Appendix C1b response, Natural England notes that the Applicant agreed, through the SoCG process, to undertake an assessment of cumulative impacts with the Sizewell C project. Natural England has also requested to review the Ecological Management Plan (EMP) and would welcome further consultation on any outline EMP during examination. Subsequently, The Applicant has further stated (written comments on NE comments to applicant comments on NE RR received 23.09.20) that additional terrestrial assessment of cumulative impacts with Sizewell C is not required. as noted in Procedural Deadline 18 submitted to ExA on 13- Aug-2020. Natural England will advise when further information is received.	



Point	EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
12	Any works that directly impact upon great crested newts should be subject to mitigation, compensation and/or a protected species license from Natural England to avoid an offence under the Wildlife and Countryside Act 1981 (as amended). We refer to the Planning Inspectorates advice note 11 which advises early engagement with Natural England. Natural England advises that the Applicant approaches us for a Letter of No Impediment (LONI) as early as possible.		The Applicant will engage with NE for a LONI and we have requested the applicant submit an Ecological Management Plan (EMP) for review.	
13	The Environmental Statement confirms suitable habitat within the vicinity of works and highlights the possibility of killing or injuring reptiles as a risk during construction. Natural England advises that reptile surveys are completed prior to construction to quantify potential impacts and to finalise mitigation works. Reptile mitigation should ensure that there is no net loss of local reptile conservation status, by providing sufficient quality, quantity and connectivity of habitat to accommodate the reptile population in the long term, either on site or at an alternative site nearby. We advise that an outline plan is provided as part of the examination.		Natural England has advised the applicant that we would welcome further consultation on any outline EMP during examination.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
14	The open cut trench method of cable installation will result in the temporary loss of supporting habitat, including the breeding sites of turtle dove which are features of interest for Leiston to Aldeburgh SSSI. We understand that any habitat removed during the period of works will be reinstated, however there is a risk that the required mitigation will not be sufficiently established to provide suitable nesting habitat for the following breeding season. Natural England advises that the 3ha of compensatory turtle dove feeding habitat to be provided should be in place in advance of works. We understand that an HDD technique will avoid the loss of designated habitat and on this basis Natural England expresses a preference for an HDD method.		NE and interesed parties held a workshop on 16.07.20. NE has povided DAS advice to the applicant on an outline SPA Crossing Method Statement (written advice 07.10.20) on these issues. Further comments on this issue can be found in NE Deadline 1 Appendix C3	



Point	EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
15	The open cut trench method of cable installation will result in the temporary loss of designated and supporting habitat, including the breeding sites of nightingale which is cited as a feature of interest for Leiston to Aldeburgh SSSI. To mitigate impacts, the Applicant proposes the provision of nesting sites for nightingale will be delivered through habitat management within and on the outskirts of the designated sites and in line with BTO habitat management guidelines. This mitigation method will need to be secured in the DCO and clearly set out in an outline habitat management/mitigation plan as there is the potential for the works themselves to be damaging to the designated sites. We advise that any scrub removal is restored with hawthorn and blackthorn.			
16	We welcome the inclusion of barn owl mitigation and the commitment to consult with the Suffolk Community Barn Owl Project. We advise that any compensatory habitat is provided in appropriate timescales. NE should be consulted on any mitigation in a designated site. This will need to be secured in the DCO and included in an outline management plan.		Natural England has advised the applicant that we would welcome further consultation on any outline EMP during examination.	



Point	EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
17	We agree with the necessity of pre-construction surveys prior to any works taking place. If active nests are found, it should be noted that all wild birds, their nests and eggs are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended), and therefore works in the vicinity of the nest may have to be delayed until any chicks have fledged. Or site preparation works need to be agreed upfront with relevant authorities in consultation with Natural England to be locations temporarily unsuitable for nesting. If exclusion or buffer zones are proposed, the size of the exclusion zone should be well researched to reflect the disturbance tolerance level of the species identified and be of a sufficient distance to prevent disturbance (noise, visual and vibration) to nesting birds.		Natural England has advised the applicant that we would welcome further consultation on any outline EMP during examination.	
Docum	nents used: 6.7 EA2 Onshore Schedule of Mitigation			



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
18	<ul> <li>Monitoring:</li> <li>Natural England notes that detail on monitoring plans is currently lacking and advises that a commitment to post-construction monitoring is made, in particular in the following cases:</li> <li>1 year post-completion of turf stripped and grassland areas which have been removed to assess that natural colonisation or reseeding has been successful, and whether additional mitigation works may be required</li> <li>Following re-instatement of habitats (see Ref 5.12 in Onshore Schedule of Mitigation), in particular if open cut trenching is used.</li> <li>7 years monitoring of hedgerows or until the hedgerows have recovered.</li> </ul>		The Applicant submitted a draft SPA crossing method statement to NE on 15.09.20. Further comments on this issue can be found in NE Deadline 1 Appendix C3	
19	Natural England welcomes the preparation of a project specific Pollution Prevention and Response Plan and advises that we are consulted within 24 hours should there be a pollution incident within or in proximity to a designated site. We also advise that SNCBs, including Natural England are listed as consultees. This should be agreed in outline as part of the examination.		The Applicant has noted [AS-036] that they will consult NE within 24 hours of an incident being detected. This matter is closed.	
20	Natural England welcomes the preparation of a project specific Noise and Vibration Management Plan. We also advise that SNCBs, including Natural England are listed as consultees. This should be agreed in outline as part of the examination.		The Applicant has noted [AS-036] that they will consult NE during preparation of the Noise and Vibration Management Plan. This matter is closed.	



	EA1N Appendix C - Terrestrial Ecology	Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
21	Natural England supports the seasonal restriction of construction works (outside of the breeding bird season; 1st February to 31st August for woodlark and 1st of April to 31st August for nightjar) within the boundary, or 200m outside of the Sandlings SPA to prevent damage or disturbance to designated features of interest. This should be included as a condition in the DCO and COCP. Natural		The Applicant submitted a draft SPA crossing method statement to NE on 15.09.20. Further comments on this issue can be found in NE Deadline 1 Appendix C3	
22	We agree with the necessity of pre-construction surveys prior to any works taking place. If active nests are found, it should be noted that all wild birds, their nests and eggs are afforded legal protection under the Wildlife and Countryside Act 1981 (as amended), and therefore works in the vicinity of the nest may have to be delayed until any chicks have fledged. Or site preparation works need to be agreed upfront with relevant authorities in consultation with Natural England to be locations temporarily unsuitable for nesting. If exclusion or buffer zones are proposed, the size of the exclusion zone should be well researched to reflect the disturbance tolerance level of the species identified and be of a sufficient distance to prevent disturbance to nesting birds.		We note through written communications [AS- 036] the applicant is proposing to update the EMP to reflect mitigation proposed for nesting birds . We will provide further advice once EMP submitted into examination.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
23	Natural England welcomes the mitigation prescribed for woodland, scrub and trees and encourage the Applicant to incorporate net gain into their strategy. We support the commitment to an aftercare period for all newly planted hedgerow, shelterbelts and woodlands. A Hedgerow Mitigation Plan should be developed in consultation with Natural England prior to the removal of hedgerows. This mitigation plan should be included within Ecological Management Plan, Landscape Management Plan or OLEMS as appropriate.		Natural England continues to recommend that Net Gain is incorporated where possible as an example of best practice so that NSIP projects leave a lasting legacy within the landscape. The Applicant provided a response to NE on 07.10.20 to state biodiversity Net Gain is not a policy requirement for NSIPs. However NE understands the Applicants will submit an Ecological Enhancement Clarification note at Deadline 1 which we will respond to at Deadline 2.	
24	Natural England requests that Statutory Nature Conservation Bodies (SNCBs) including Natural England are consulted on the Ecological Management Plan.		The Applicant has advised NE that EMP must be submitted and approved by the planning authority in consultation with the relevant SNCB before any onshore works can commence. NE advises this should be secured in the DCO before this is agreed.	
	Added since Relevant Reps submission:			



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix C - Terrestrial Ecology	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
25	Added after SoCG meeting with Applicant 19/02/2020: Applicant confirmed that HDD will not be used as a method of cable laying to cross the Hundred River. Natural England raised concerns about potential impacts to Sandlings SPA if an open trenching method is used. Reasons that HDD is not possible should be clearly provided in examination and if open trenching is used, the impacts of the trenching also need to be fully assessed, particularly in relation to water quality effects on the Sandling's SPA and protected species. Any mitigation and restorations required should be submitted. Outline plans should be provided to support consent and we request consultation on all documents associated with cables crossing the Hundred River well in advance of pre-construction surveys and works. This should be included as a condition in the DCO.		SoCG to be submitted at Deadline 1. See reponse to ExA question 1.2.67. Further comments on this issue can be found in NE Deadline 1 Appendix C1b	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix D - Landscape and Visual Impact Assessment (LVIA) – Terrestrial aspects of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
Docun	nent Used: 6.1.29 EA2 Environmental Statement Chapter 29 Landscape and Y	Visual Impac	t Assessment	
1	Vital mitigation measure is for the onshore cabling to be installed for both simultaneously and not sequentially. The Applicant discusses some ducting possibly being installed to accommodate both schemes when one is being constructed. The AONB justifies the most effective mitigation being applied i.e. both onshore cabling stages to be completed together and the landscape fully restored as soon as possible.		30th July Multi-party Workshop. Natural England continues to advise significant adverse effect on the AONB because of technical bidding and contractual issue between applicant and government and suggest applicant approaches govt to advise of this (NE Deadline 1 Annex D1b). Discussion Ongoing.	
2	NE would like to see an anticipated timetable / schedule for how construction activities would progress along the cable route within and in the immediate setting of the AONB, what construction consolidation sites and associated or other construction infrastructure and equipment would be present and how long after commencement all signs of active construction activity would be removed from the AONB. This information would complement the stated expectation that the landfall construction site and infrastructure for each scheme being present for twenty months.		Natural England has liased with the Applicant on this matter, this is outlined in NE Deadline 1 Annex D1b. NE notes no commitment from applicant to an anticipated timetable/construction activities schedule - this would be made post consent. Therefore the actual impact of the construction phase on the AONB is likely to be more difficult to assess. Could consideration be given to undertaking key elements at the same time such as ducting for both projects especially at designated sites including landscape.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix D - Landscape and Visual Impact Assessment (LVIA) – Terrestrial aspects of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
3	NE welcomes the assessment of cumulative impacts of the EA1N and EA2 OWFs with the construction and operational phases of Sizewell C. In addition to the outlined mitigation to reinstate the landscape character and special qualities of the AONB post-construction, Natural England advises that all parties consider landscape enhancement/net gain opportunities within the AONB. We advise that there is an agreement put in place on how this could be achieved with the AONB partnership in consultation with Natural England and others.		30th July Multi-party Workshop - The Applicant noted that the reinstatement methodology is within the code of construction practice. NE notes the Applicant will submit information on cumulative impacts with Sizewell C during examination. As outlined in NE Deadline 1 Annex D1b, there is no policy for Net Gain. Subsequently the Applicant notified NE that an Ecological Enhancement note is being prepared to be submitted into examination.	



Point	Taken from Natural England's Relevant and Written Representations EA2         Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) -         'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
Commen 1	ts on 'Good Design' (Point 3.1.1). Due to the technology choice selected for use in the worst case scenario, and reflecting that smaller turbines are available, NE considers that the NPS requirements for 'good design' have not yet been fully applied in the design of the EA2 scheme. And as a consequence the statutory purpose of the AONB will be adversely effected by the EA2 proposal as it is currently configured.		Deadline 1 Appendix E1b NE Response (Point 3.1.1) - Ongoing - The reduction in spread of the array does not represent sufficient mitigation although it does provide an important contribution to reducing cumulative effects with the E1N scheme.	
Commen 2	ts on Visibility (Point 3.2.1) Natural England notes that the text used in Offshore Visibility Appendix (PIER Appendix 28.7, ES Appendix 28.8) are essentially the same. We reiterate the relevant parts of our s42 consultation response. We also add further comments in response to new text in the ES SLVIA and as a result of the evidence gathered by NE in the summer of 2019 as provided for within our Relevant Representation. An understanding of the likely number of turbines within the array which would contribute most to the predicted significant landscape and visual effects would be helpful in determining this application.		Deadline 1 Appendix E1b NE Response (Point 3.2.1) - Ongoing - NE welcome the additional information on proximity of turbines to coastline. Significant adverse effects on the SCHAONB will occur from approximately 13% and potentially 26% of the array. NE request the Applicant to confirm this point.	



Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
3	(point 3.1.2) At the S42 consultation NE commented on the information and statements contained in paragraphs 8 and 12 of 28.8 (paragraphs 7 and 11 of PEIR document 28.7). We reviewed our comments and provided an update . A copy of quoted research document 'Offshore Wind Turbine Visibility and Visual impact Threshold Distances (2012)', included as an appendix to the ES would be helpful.		Further comments on this issue can be found in NE Deadline 1 Appendix E2.	
Commer	nts on the revised layout design			
4	<ul> <li>(Point 3.3.1) Magnitude of effect - The revised design presented in the ES is welcomed by NE for the reduction in the magnitude of effect this represents.</li> <li>(Point 3.3.2) Reduced Lateral Spread -NE agrees that the revised layout will reduce the magnitude of seascape, landscape and visual effects on the setting and key coastal viewpoints of the AONB. NE agree that the revised design results in a notable reduction in the lateral spread (See ES Table 28.3) which we calculated to be between 31% and 28%.</li> <li>(Point 3.3.3) Concentrated Grouping - Natural England agrees that concentrating the turbines into a smaller area will assist in reducing the magnitude of effect of the scheme.</li> </ul>		Deadline 1 Appendix E1b NE Response (Points 3.3.1 to 3.3.3) - Ongoing - Natural England is in agreement with SPR based on the turbine heights included within the Application. As noted in the July Workshop NE note that further consultation will be required on any revised assessments reflecting amended turbine heights.	





<ul> <li>Point 3.3.4) Increased distance to shore - Natural England concludes therefore that the revised design provides no embedded mitigation in terms of proximity to the coast of the AONB nor in the height of the turbines used in the worst case scenario. Consequently the magnitude of this effect remains the same as that for the scheme design presented in the PEIR. This is primarily due to the height of the turbines used in the worst case scenario. The scheme design presented in the PEIR. This is primarily due to the height of the turbines used in the worst case scenario that so many significant landscape and visual effects have been identified in the SLVIA for landscape and visual receptors located in the northern portion of the AONB.</li> <li>Coated in the northern portion of the AONB.</li> <li>Deadline 1 Appendix E1b NE Response (Point 3.3.4) - NE welcomes the corrected 'Distance from the Pier windfarm site'. NE accepts the reasons for this. Ongoing: As a consequence NE analysis of apparent height values presented using turbine height 282m .</li> <li>Deadline 1 Appendix E1b NE Response (Point 3.3.4) - Ongoing: NE notes the reduction in the magnitude of change judgements for Covehithe. NE disagree with this adjustment from medium to medium-low.</li> <li>(Point 3.3.5) Cumulative effects -Natural England agrees that the cumulative effect of EA2, in conjunction with EA1N, will be reduced through the creation of a clear gap in the seascape between these 2 schemes. This has effectively removed the possibility that a 'curtaining' effect would be apparent from certain viewpoints located on the coastline of the AONB. However we note that significant cumulative effects are still</li> </ul>	Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
63.3.4) - Ongoing: NE notes the reduction in the magnitude of change judgements for Covehithe. NE disagree with this adjustment from medium to medium-low.6(Point 3.3.5) Cumulative effects -Natural England agrees that the cumulative effect of EA2, in conjunction with EA1N, will be reduced through the creation of a clear gap in the seascape between these 2 schemes. This has effectively removed the possibility that a 'curtaining' effect would be apparent from certain viewpoints located on the coastlineDeadline 1 Appendix E1b NE Response (Point 3.3.5) Ongoing: NE advises that there are still cumulative effects from the presence of EA2 in conjunction with EA1N.	5	therefore that the revised design provides no embedded mitigation in terms of proximity to the coast of the AONB nor in the height of the turbines used in the worst case scenario. Consequently the magnitude of this effect remains the same as that for the scheme design presented in the PEIR. This is primarily due to the height of the turbines used in the worst case scenario that so many significant landscape and visual effects have been identified in the SLVIA for landscape and visual receptors		3.3.4) - NE welcomes the corrected 'Distance from the Project (km)' (p.420 of SPR comments on RR) values and accompanying clarification that there has been 'no reduction of the minimum separation distance between the PIER windfarm site and the ES windfarm site'. NE accepts the reasons for this. Ongoing: As a consequence NE analysis of apparent height values presented using	
63.3.5) Ongoing: NE advises that there are still cumulative effect of EA2, in conjunction with EA1N, will be reduced through the creation of a clear gap in the seascape between these 2 schemes. This has effectively removed the possibility that a 'curtaining' effect would be apparent from certain viewpoints located on the coastline3.3.5) Ongoing: NE advises that there are still cumulative effects from the presence of EA2 in conjunction with EA1N.				<ul><li>3.3.4) - Ongoing: NE notes the reduction in the magnitude of change judgements for Covehithe.</li><li>NE disagree with this adjustment from medium to</li></ul>	
predicated.	6	cumulative effect of EA2, in conjunction with EA1N, will be reduced through the creation of a clear gap in the seascape between these 2 schemes. This has effectively removed the possibility that a 'curtaining' effect would be apparent from certain viewpoints located on the coastline of the AONB. However we note that significant cumulative effects are still		3.3.5) Ongoing: NE advises that there are still cumulative effects from the presence of EA2 in	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
	(Point 3.4.1) Natural England's advice at s42 included comments on the night time effects produced by the navigation lighting associated with the EA2 turbines. From our review of the ES SLVIA documents we can find no evidence that our comments have been addressed. We request therefore that these effects are assessed and the results used to inform the significance of effect judgement for both landscape and visual receptors.		Deadline 1 Appendix E1b NE Response (Point 3.4.1.) and outcome of July workshop - Resolved - NE welcomes the Applicant's commitment to reduce the intensity of the aviation lighting to 200cd whenever atmospheric conditions permit.	
7			Deadline 1 Appendix E1b NE Response (Point 3.4.1) - Ongoing - Please be advised that the notion that 'landscape character is not really perceived at night' is incorrect. NE notes the Applicant's commitment to reduce the intensity of aviation lighting to 200cd and we therefore accept that there is no longer a need to produce night-time effect photomontages We advise that the effect of the 200cd lighting will not be significant for all receptors and the special qualities of the SCHAONB.	
Commer	ts on the AONB Baseline			
8	(Point 3.3.1) For the s42 consultation Natural England made comments on the anticipated trends in the AONB baseline conditions and these are repeated from the s42 consultation.		Deadline 1 Appendix E1b NE Response to Applicants comments (Point 3.5.1) - Ongoing: Please note that Sizewell C DCO has now been submitted.	



Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) -'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
9	(Point 3.5.2) Natural England accepts the reasoning set out in the ES paragraph 3.5.2 but is concerned about the conclusions drawn. The applicant is correct in stating that the seascape covered by the study (and the wider seascape of the southern North Sea) is increasingly characterised by the presence of a number of large offshore windfarms. However, we consider that it is incorrect to assume that the acceptable landscape and seascape change which this has produced sets a precedent for EA2.		Deadline 1 Appendix E1b NE Response (Point 3.5.2) - Ongoing: NE agrees that EA2 will have 'significant effects on the perception of panoramic offshore views from parts of the AONB coastline' but disagrees that this 'will not result in harm to the statutory purposes of the AONB'.	
Commer	its on Seascape Character Assessment			
9	(Point 3.6.1) For the s42 consultation we requested that maintenance activities associated with the operational phase of the scheme are incorporated into the seascape assessment; see Chapter 6 6.5.15 p.59 – 60. From our review of the ES SLVIA we cannot find evidence that this has been done. We therefore ask again that this is done.		Deadline 1 Appendix E1b NE Response - Resolved (Point 3.6.1): NE thank the Applicant for confirming that maintenance activities have been incorporated into the assessment of the operational effects of the project. NE agrees that no further assessment of maintenance activities is required.	
Commer	its on landscape receptors			
10	Table 3.7 and Point 3.7.1) Our advice provided at s42 remains the same for these LCT areas. The concerns for these LCT areas LCT 06 Area B, LCT 06 Area D, LCT 29 Covehithe Broad and Easton Broad) have been presented within our relevant representations.		Deadline 1 Appendix E1b NE Response (Point 3.7.1 to 3.7.4) - Ongoing: Outstanding issues remain with LCT's.	
EA2 Con	ments on the AONB Special Qualities			



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
11	Table 4 Summary of Natural England's position based on Table 28.10 of the ES		Deadline 1 Appendix E1b NE Response (Table 4 and Point 3.8.2) Summary of Comments for the special qualities assessment) - Ongoing: This is the critical point of disagreement between the Applicant and NE with reference to Table 4 listing 18 special qualities for the SCHAONB and where NE disagrees or agrees with the applicant . NE judge that significant adverse effects will occur on 11 of the 18 listed special qualities. NE position remains unchanged for 6 special qualities where we disagree with the Applicant's conclusion of not significant, detailed in points 13 to 18 below.	
12	(Point 3.8.1) The role of the seascape setting of the AONB in shaping and maintaining the special qualities of the area is a vital consideration and a critical component of the SLVIA. It is a key interest for Natural England. We therefore welcome this assessment for the evidence and clarity it provides and believe it will greatly assist in the determination of the scheme.		Deadline 1 Appendix E1b NE Response (Point 3.8.1) Introductory comment with no further actions. Please see Responses to 3.8.2 – 3.8.7.	



Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) -'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
13	(Point 3.8.2)Landscape Quality – Influence of Incongruous features - We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant.		Deadline 1 Appendix E1b NE Response (Point 3.8.2) - Ongoing: as above (point 11 of this document) NE position remains unchanged.	
14	(Point 3.8.3) Scenic Quality - Appeal to the senses; Sensory stimuli and 'big Suffolk skies' We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant.		.Deadline 1 Appendix E1b NE Response (Point 3.8.3) - Ongoing: as above (point 11) NE position remains unchanged	
15	(Point 3.8.4) Relative Wildness Sense of remoteness; pockets of relative wildness. We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant.		Deadline 1 Appendix E1b NE Response (Point 3.8.4) - Ongoing: as above (point 11) NE position remains unchanged.	
16	(Point 3.8.5) Relative Wildness Sense of remoteness; largely undeveloped coastlines - We disagree with the magnitude of change judgement of medium-low. We consider the change to be at least medium and the significance of effect should be significant.		Deadline 1 Appendix E1b NE Response (Point 3.8.5) - Ongoing: as above (point 11) NE position remains unchanged.	
17	(Point 3.8.6) Relative Wildness Sense of passing time and a return to nature. We disagree with the magnitude of change judgment of medium- low. We consider the change to be at least medium and the significance of effect should be significant.		Deadline 1 Appendix E1b NE Response (Point 3.8.6) - Ongoing: as above (point 11) NE position remains unchanged.	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
18	(Point 3.8.7) Relative Tranquillity - Distractors from tranquillity. We disagree with the magnitude of change judgment of medium-low. We consider the change to be at least medium and the significance of effect should be significant.		Deadline 1 Appendix E1b NE Response (Point 3.8.7) - Ongoing: as above (point 11) NE position remains unchanged.	
Comme	nts on Viewpoints and Visual Receptors			
19	(Point 3.9.1 and Table 5) Our advice provided at s42 remains the same for those visual receptor groups at those viewpoints listed in the table above where we agree with the judgement in the ES SLVIA. Where we disagree with the judgement in the ES SLVIA we offer on comments point 20 and 21 (Point 3.92 and 3.9.3 of RR). These comments have been updated following the site visits undertaken in the summer of 2019.		Deadline 1 Appendix E1b NE Response (Point 3.9.1) - Please see detailed comments (Point 3.9.2 and 3.9.3 in Appendix E1b).	



Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
20	(Point 3.9.2) Viewpoint 10 Sizewell Beach - We disagree with the judgement of no significant effects as set out. In all other instances the sensitivity of 'beach users' and 'walkers on the SCP' (and similar groups) is high; this includes at viewpoints 4, 5, 13, A and D which are either urban or semi-urban in character. Natural England sees no justification in lowering the sensitivity of this group at this location to medium on the premise that the presence of Sizewell nuclear power station would reduce their expectations, and hence the sensitivity, of these groups. The sensitivity for these groups at this location should be assigned as high . We advise that the significance of effect for these 2 receptor groups at this location is significant.		Deadline 1 Appendix E1b NE Response (Point 3.9.2) - Ongoing: The continued points put forward by the Appplicant fail to take into account the statutory purposes of the AONB; to conserve and enhance natural beauty.	



Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
21	(Point 3.9.3) Viewpoint 18 Orford Ness -The judgement for this location in the PEIR was significant (PEIR Appendix 28.4 p.71). We assume that the revised design has resulted in the array being 200m closer to the location of this viewpoint, but with a reduced lateral spread (37.8 to 27.1 degrees). This revision has resulted in a judgment of not significant within the ES. However, we note that significant landscape effects (LCT 06) are predicted to extend to a point approximately 1.25km north of the location of this viewpoint.The reasoning in the ES is essentially the same as that provided in the PEIR, although we note the additional text in the ES. Our concerns remain in relation to: That Galloper and Greater gabbard occupy 22% of the visible seaward horizon, the assertion that the verticle height of the turbines will be relatively moderate, and we disagree that Galloper and Greater Gabbard arrays provide justification for EA2.		Deadline 1 Appendix E1b NE Response (Point 3.9.3) - Ongoing - NE accepts the Applicant's point that the reduced lateral spread of the EA2 array has contributed to a reduction in the magnitude of change to medium-low 'resulting on balance, to a judgement of not significant within the ES'. (Point 3.9.3) Other disagreements continue.	
	(Point 3.9.3) Viewpoint 18 Orford Ness We accept that determining the significance of effect for this viewpoint is a finely balanced judgement, which is reflected in both the PEIR and ES through differing combinations of factors. In this instance, and in consideration of the unique character of this location, we advise that a precautionary approach should be adopted. Therefore Natural England disagrees with the revised judgement and advises that the significance of effect on the receptor group visiting this location is significant.		Deadline 1 Appendix E1b NE Response (Point 3.9.3) NE still considers that determining the significance of effect for visual receptors at this viewpoint is a finely balanced judgement. We welcome the Applicant's agreement on this point. However, NEs advice remains unchanged.	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
22	(Point 3.10.1) Section 7 Minsmere and Sizewell -We disagree with the judgement of no significant effects as set out.		Deadline 1 Appendix E1b NE Response (Point 3.10 and Table 6) - Suffolk Coast Path: Natural England continues to disagree with the Applicant on the significance of the impact at Section 7 Minsmere to Sizewell.	
Commen	ts on Cumulative Effects			
23	(Point 3.11.1) The ES SLVIA for EA1N judges that there are no significant landscape and visible effects resulting from this scheme despite the use of turbine technology identical to that used in EA2. The separation distance of the EA1N scheme from the coast of the AONB is greater than that of EA2 and the lateral spread smaller when viewed form the coastline. Natural England agrees with this conclusion although notes that opportunities exist to reduce these effects further through the use of shorter turbines.		Deadline 1 Appendix E1b NE Response (Point 3.11.1) - Cumulative Effects with EA1N Ongoing: The values presented by NE updated to view height of 6.5m	
Commen	ts on Summary and Conclusions			
23	(Point 3.12.1) Natural England restricts its comments to those statements where we disagree with the applicant's assessment or where we wish to provide clarity on the implications of a statement as presented.		(Point 3.12.1) Deadline 1 Appendix E1b NE Response (point 3.11.1) - No further comment - NE position remains unchanged.	



Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) -'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
24	(Point 3.12.2) We note the increase in the minimum of separation distance to 32.6km and the increase in separation distance from the coast at viewpoints 3, 4, 5 and 6. We also note the decrease in separation distance for viewpoints 7, 8, 9, 10,11,12,13 and 18. Based on these 12 locations the average separation distance remains unchanged at 34.5km.		(Point 3.12.1) Deadline 1 Appendix E1b NE Response - Please refer to our comments at NE - 3.3.4. NE position remains unchanged.	
25	(Point 3.12.3) We are unsure of the point that this paragraph is seeking to make.		Deadline 1 Appendix E1b NE Response (point 3.12.3) – NE thank the applicant for clarification provided. NE position remains unchanged.	
26	(Point 3.12.4) We advise that significant landscape effects are very likely to occur in respect of the setting of LCT 29 Covehithe and wish to see an assessment of this LCT.		Deadline 1 Appendix E1b NE Response (Point 3.12.4) - NE position remains unchanged.	
27	(Point 3.12.5) We disagree that effects on AONB special quality 'big Suffolk Skies' are not significant.		Deadline 1 Appendix E1b NE Response (Point 3.12.5) - NE position remains unchanged.	
28	(Point 3.12.6) We agree that the additional effects that the EA1N scheme contributes to the cumulative effects of the two schemes is small. However we note that there opportunities to lessen this contribution through the use of shorter turbines. NE does not consider that the combined lateral spread of the two arrays is likely to result in significant adverse visual effects. The reduction in the lateral spread of the EA2 array has eliminated the possibility of a 'curtaining effect' where views of the horizon are obscured due to the apparent merging of the EA1N and EA2 arrays.		Deadline 1 Appendix E1b NE Response (Point 3.12.6). Further, it was agreed at the July workshop that EA1N is considered not to contribute meaningfully / significantly to the cumulative effect with EA2 i.e. not significant.	



Point	Taken from Natural England's Relevant and Written Representations EA2Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) -'Offshore' elements of the project	Consultation, actions, progression	RAG status Deadline 1
29	(Point 3.12.7) Natural England accepts that there is capacity within SCT 06 Offshore Waters to accommodate further windfarms provided that the technology selected and design of the layout, particularly the distance from the coastline of the AONB, is sufficient to avoid significant adverse landscape and visual effects which are detrimental to the statutory purpose of the designation.	Deadline 1 Appendix E1b NE Response (point 3.12.7) - NE position remains unchanged.	



Point	Taken from Natural England's Relevant and Written Representations EA2 Appendix E - Seascape and Landscape Visual Impact Assessment (SLVIA) - 'Offshore' elements of the project	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
30	(Point 3.12.8) Natural England notes the incompleteness of some of the statements in the 2 <sup>nd</sup> , 3 <sup>rd</sup> , 5th and 4 <sup>th</sup> bullet points of this paragraph. For the 2nd bullet we note that significant landscape and visual effects are predicted to extend for at least 35km along the coast for the majority of this distance. Due to the technology selected in the worst case scenario we disagree with the statement in the 3rd bullet point. At the 4th bullet point the statement made at paragraph 155 (Chapter 28 p.46) is needed to clarity the statement made here; 'It (EA2) will however result in changes to the seascape character, perceived from the land, particularly that portion of the Offshore Water LCT (06) which forms the seascape setting of the AONB'. In the 5th Bullet we advise that the phrase 'EA2 windfarm site' although factually correct is misleading. Natural England disagrees with conclusion of the final sentence as set out at the 7th bullet point. Natural England advises that the special qualities of the AONB will be adversely effected by this scheme. Although these effects will be confined to the northern portion of the designation's coastline, and will not affect every part of the AONB, they are nevertheless predicted to occur.		Deadline 1 Appendix E1b NE Response (Point 3.12.8) - NE's advice remains unchanged.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
Docum	nent used: 6.1.4 EA2 Environmental Statement Chapter 04 Site Selection and	Assessment	t of Alternatives	
1	Although the decision to cross the Sandlings SPA at the narrowest section is welcomed, it should be noted the decision to HDD or trench through this section has yet to be determined. There is still the potential for impacts and disturbance to occur to species using the SPA despite this narrowest route.		Please see NE Deadline 1 Appendix C2.	
2	Natural England queries if the removal of a section of woodland been fully considered within the ES. Signposting to this would be useful. Has the applicant considered alternatives to not removing the woodland and will the woodland be replaced?		The Applicant signposted Natural England [AS- 036] to the relevant sections and documents, we are satisfied this issue has been considered.	
3	Although Natural England recognises the options of crossing the SPA, trenching or HDD, the Applicant needs to make it clear what the impacts will be if the EA2 and EA1N cable routes are put in sequentially rather than at the same time (see point 4 below). This applies to other scenarios such as Aldeburgh road woodland.		The Applicant signposted Natural England [AS- 036] to the relevant sections and documents, we are satisfied this issue has been considered. The worst case scenario of sequential construction of the onshore cabling remains a concern for Natural England.	
Docum	ent used: 6.1.6 EA2 Environmental Statement Chapter 06 Project Descriptio	n		



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
4	It is not clear whether the cable corridor area described is intended for both EA1N and EA2, i.e. will all cable installation for both projects take place within the same 32m wide corridor or will there be 2x 32m cable corridors, one for EA1N and one for EA2? If the cable routes for both EA1N and EA2 are installed within the same 32m wide corridor, will this occur sequentially or at the same time?		The Applicant signposted Natural England [AS- 036] to the relevant sections and documents. NE has concerns about sequential installation.	
Docun	nent used: 6.1.7 EA2 Environmental Statement Chapter 07 Marine Geology, (	Dceanograp	hy and Physical Processes	
5	Natural England advises that evidence needs to presented to support statements that the maximum volumes of sediment released from sea bed preparation is five times greater than is likely to be released by scour. This currently seems quite arbitrary to base the assessment of scour during the operational phase on. Does this only apply to near-surface sediments as indicated by table 7.3?		The Applicant submitted a document [AS-036] that states that the figure only applies to near- surface sediments - those which will be released by scour. Natural England is satisfied this issue has been addressed.	
6	Much of the cable corridor sits within the Outer Thames Estuary SPA and there is the potential for disturbance to the features during any proposed works. Likewise, these subtidal sandbanks are key feeding areas for designated features such as red-throated diver. Therefore, for works including disposal within the sandbank areas there will need to be an assessment of the impacts against the conservation objectives for the site.		Please see NE Deadline 1 Appendix F2b.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
7	Assuming some of the cable protection will be laid within the SPA boundary, has the Applicant considered the loss of supporting SPA habitat for the designated features? This will need to be considered across several thematic areas including offshore ornithology, sediment transportation and benthic.			
8	It is clear from the ES that both project sites exhibit large areas of sandwaves and mega ripples. This suggests to Natural England that a significant amount of sandwave clearance may be needed. If so, then it is essential that the applicant sufficiently considers the impact of disturbance and prey availability upon the interest features of the Outer Thames Estuary SPA, plus the potential loss of <i>Sabellaria spinulosa</i> reef which should be avoided by micro-siting where possible.			
9	The ES indicates that a relatively large area of the export cable corridor is predominantly silt. Has this change in sediment been fed into the impact assessment to determine the impact of trenching cables within this area? A greater percentage of silt within the sediment will result in a more persistent suspended sediment concentration following disturbance.		The Applicant submitted a document [AS-036], NE is satifisied this matter is agreed.	
10	Is there any site specific evidence from the EA One construction of the actual sediment concentrations that were experienced during foundation installation?		The Applicant submitted a document [AS-036], NE is satifisied this matter is agreed.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
11	Clarification on why there is such a wide difference in the potential height of drill arisings mounds would be welcome. In addition the persistence of any mound/s would also need to be considered. If this is hard substrata then it would need to be potentially added to the in-combination assessment of any cable/scour protection; especially in relation to potential impacts to the conservation objectives for the Outer Thames SPA.		Ongoing discussions	
12	Although the overall sediment release volumes would be low and confined to near the sea bed; it is not clear if there has been an assessment of the impacts at varying depths? This may apply more to the export cable installation further inshore.		The Applicant submitted a document [AS-036], NE is satifisied this matter is agreed.	
13	A relatively large area of the export cable corridor is predominantly silt. There seems to be no assessment of how this would affect the dispersion and settlement rate, particularly in nearshore shallow waters and any designated sites. Further information would be welcome.		The Applicant submitted a document [AS-036], NE is satifisied this matter is agreed.	
14	Natural England queries if there is an opportunity to microsite jack up vessels legs if habitats of conservation interest are found in the area during pre-construction surveys?		NE note the Applicant will submit an Outline Sabellaria Reef Management Plan at Deadline 1, NE will respond at Deadline 2.	



InstructionConfirmed the figure was in error, we welcome than the worst case volume of sediment released following sea bed preparation activities, this impact could be considered longer term as scour is likely to continue during the lifetime of the wind farm. It is not clear how this been considered and assessed by the applicant?Confirmed the figure was in error, we welcome the correction.The ES Table 7.32 concludes that the magnitude of effect on sea bed morphology due to the presence of foundations is high in the near field. Further expansion within this section on what this means for the receptors concerning this chapter would be useful. We understand the effect will be raised in other chapters, but it is hard to understand what this magnitude means for this particular topic.The Applicant identifies this impact (changes to the sea bed morphology due to the presence of foundation structures) as not having the potential for cumulative impacts, as the foundation structures affects a discrete area of seabed. However, in-combination with other windfarms and their associated foundation footprints could these discrete areas be combined to create a large overall impact?The Applicant identifies this magnet?	Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
morphology due to the presence of foundations is high in the near field. Further expansion within this section on what this means for the receptors concerning this chapter would be useful. We understand the effect will be raised in other chapters, but it is hard to understand what this magnitude means for this particular topic.is satifisied this matter is agreed.16The Applicant identifies this impact (changes to the sea bed morphology due to the presence of foundation structures) as not having the potential for cumulative impacts, as the foundation structures affects a discrete area of seabed. However, in-combination with other windfarms and their associated foundation footprints could these discrete areas be combined to create a large overall impact?The Applicant impact?	15	than the worst case volume of sediment released following sea bed preparation activities, this impact could be considered longer term as scour is likely to continue during the lifetime of the wind farm. It is not clear how		The Applicant's response to NE's RR/WR [AS-036] confirmed the figure was in error, we welcome the correction.	
<ul> <li>due to the presence of foundation structures) as not having the potential for cumulative impacts, as the foundation structures affects a discrete area of seabed. However, in-combination with other windfarms and their associated foundation footprints could these discrete areas be combined to create a large overall impact?</li> </ul>	16	morphology due to the presence of foundations is high in the near field. Further expansion within this section on what this means for the receptors concerning this chapter would be useful. We understand the effect will be raised in other chapters, but it is hard to understand what this magnitude		The Applicant submitted a document [AS-036], NE is satifisied this matter is agreed.	
	17	due to the presence of foundation structures) as not having the potential for cumulative impacts, as the foundation structures affects a discrete area of seabed. However, in-combination with other windfarms and their associated foundation footprints could these discrete areas be combined		The Applicant submitted a document [AS-036], NE is satifisied this matter is agreed.	
Natural England queries what is this accepted threshold of 5 % and less for cumulative effect on baseline wave regime based upon? What are the predicted impacts of a greater than 2 % increase upon the sensitive receptors for marine geology, oceanography and physical processes?The Applicant submitted a document [AS-036] is satifisied this matter is agreed.	18	cumulative effect on baseline wave regime based upon? What are the predicted impacts of a greater than 2 % increase upon the sensitive		The Applicant submitted a document [AS-036], NE is satifisied this matter is agreed.	



Point	PLATE THE THE THE TABLE TO THE TABLE TA	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
19	Natural England wishes to highlight that the worst case scenario for benthic ecology should be related to the foundation type and not the blade tip height. We believe that this has been covered in the chapter so raises as a point to note to the examiner.			
20	Natural England highlights that the Rochdale envelope remains all- encompassing including the use of Gravity Based foundations that have not been used in English waters to date. Therefore, we would question why these have continued to be included in the Environmental Statement (ES). Especially as it unrealistically skews some of the assessments.			
21	Please be advised that there should be a commitment that is secured in one of the DCO/DML reference docs relating to the clearance of boulders should be away from habitat of conservation important.		NE note the Applicant will submit an Outline Sabellaria Reef Management Plan at Deadline 1, we will respond at Deadline 2.	
22	Natural England supports the undertaking of sandwave levelling if as stated it reduces the need for cable protection. However, we do recognise that sandwave levelling activities (including sediment disposal), is likely to have a significant effect (LSE) on the interest features of the Outer Thames Estuary SPA and will need to be considered against the conservation objectives for the site in an Appropriate Assessment.		This issue is ongoing. Natural England has provided the Applicant with GIS layers (through our Discretionary Advice Service) to form a supporting habitat map (08.10.20).	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
23	We welcome the commitment to avoid sensitive receptors when undertaking sandwave levelling works, but where possible sand should be disposed in similar particle sized areas.		Natural England have liased with the Applicant on this matter, this is outlined in NE Deadline 1 Appendix F1b. Ongoing issue.	
24	It would be helpful if the Applicant could provide context from East Anglia ONE in relation to the amount and location of cable protection placed along the export cable.		Within AS-036, we note that EA1 installed cable along 2.11% of its first export cable and 2.12% along its second. NE welcomes this information and request that it is expanded and used as supporting evidence when considering potential risk of habitat changes from cable protection.	
25	Natural England notes that the placement of new cable protection over the life time of the project is not included in the assessment. Is this because a separate marine licence will be applied for at the time?		This matter is under consideration by the applicant.	
26	Please be advised that the assessment of cable protection is not consistent with Natural England recent draft advice position paper as provided for Boreas examination. Ideally drill arisings should be deposited in areas of scour protection against to turbines and/or similar habitats.		This issue is ongoing.	
27	Please be advised that mitigation in the form of micro-siting is not normally secured as part of the In Principle Monitoring Plan. Further consideration should be given to how best to do this.		This issue is ongoing. Please see DCO Issues Log (point 11).	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
28	Natural England notes that no benthic ecology monitoring is proposed. However, this differs from what is outlined the In-Principal Monitoring Plan (Page 10, Table 2 within Section 1.6.4). Natural England agrees with the IPMP and advises that potential impacts to <i>Sabellaria spinulosa</i> reef areas will be required.			
29	Please be advised that all reef is reef no matter the quality and is therefore protected as such.		Natural England have liased with the Applicant on this matter, this is outlined in NE Deadline 1 Appendix F1b. NE have stated that all reef is protected therefore can we take it that the Applicant agrees with NE and will be addressed accordingly through the Design Plan.	
30	Natural England notes that impacts to mapped sandbanks will be avoided. However, there remains an impact to 1,000,000m <sup>3</sup> of sediment, which is not small. It would therefore be useful know footprint/spatial extent to the impacts. However, at this stage we can advise that there would be a LSE which would require further consideration as part of an Appropriate Assessment.		This issue is ongoing. Natural England have provided the Applicant with GIS layers (through our Discretionary Advice Service) to form a supporting habitat map (08.10.20).	
31	Natural England notes that cable protection is proposed at the HDD exit point. Please be advised that there will need to be join up in relation to potential impacts to coastal processes and sediment transport.		Please see NE Deadline 1 Appendix C3.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
32	Natural England doesn't support the view that reef on artificial substrate is Annex I reef. Please see Appendix F3 for our advice on the Boreas offshore windfarm application. But it is recognised that as the works are not within a designated site there is no legislation under pinning this advice.			
Docum	Document used: 6.1.10 EA2 Environmental Statement Chapter 10 Fish and Shellfish Ecology			
33	Although larval abundances between 2007- 2017 have been relatively low as described by Figures 10.15 to 10.17, there is little mention of the nursery grounds in relation to Herring. Figure 10.14 indicates that the cable corridor in particular is a high intensity nursery ground. Natural England would welcome further consideration of how impacts to nursey grounds may effect prey availability for the interest features of the marine protected areas. Natural England also advises that the impacts of climate change, particularly the redistribution of species as a result, is considered within the assessments against the variety of species considered.		In AS-036 the Applicant stated there was an error in data processing which have now been updated. We welcomed these changes and advised the impacts to prey availability for OTE SPA still need to be considered through HRA. More comments on this matter can be found at NE Deadline 1 Appendix F1b.	



Point	EA1N Appendix F1 - All Other Matters	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
34	As raised in our Preliminary Environmental Information Report (PEIR) response, the reference used within this paragraph is very old, nearly 40 years. Is there any more recent evidence to show herring tolerance to elevated suspended sediment concentrations? Also what does Kiorboe et al. 1981 define as "short term" exposure?		The Applicant stated [AS-036] that an extensive literature review has been conducted. NE notes the commitment to the new research into herring tolerance to elevated suspended sediment concentrations at the time of construction. This matter is ongoing until it is secured.	
35	Is there any further site specific information to determine the likelihood of being in direct contact with sand eel habitat and linking this to the noise modelling impacts to have a greater understanding of the risk given to sand eels?		AS-036 provides further information. We defer to Cefas for their expertise on this topic.	
36	Is there a reason why the applicant cannot commit to burying their cable to a minimum depth of 1.5m?		Whilst the applicant responded at AS-036, there remains disagreements.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
Docum	nent Used: 3.1 EA2 Draft Development Consent Order			
1	Natural England cannot agree to the definitions of "commence" and "offshore preparation works". As currently drafted the wording the work permits damaging works such as UXO detonation. The wording is also open to the inclusion of more activities than specified and thus could lead to works such as boulder removal, sandwave levelling, pre lay grapnel runs and a range of other potentially environmentally damaging works. These works could commence before the appropriate methodologies and documentation have been approved. As there would be no regulatory involvement it is not certain if pre construction surveys would be completed to sufficiently inform and agree micro siting requirements. Thus leading to an increased risk of impact to features of conservation value, such as biogenic reef. The words 'but not limited to' should be removed, as should reference to UXO detonation works.		The Applicant stated [AS-036] that they will update the definition of "offshore preparation works" in the next version of the draft DCO. There is ongoing disagreement with regards to the UXO detonation timings. More comments can be seen at NE Deadline 1 Annex G1b.	
2	Natural England does not agree with the definition of "maintain". Specifically that works linked as ancillary works (listed in schedule 1 part 1) are part of maintenance. Works such as cable protection and scour protection deployment are construction activities which can have significant environmental impact. They should not be included within the definition of maintenance. Please see Natural England and the MMO positions on deployment of cable protection.		The Applicant stated [AS-036] that they will review a paper produced by Natural England which offers guidance on the expected marine licensing requirements. This is an ongoing issue.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
3	Arbitration: Natural England does not consider that it is appropriate for post-consent sign-off of DML conditions to be subject to arbitration. Natural England suggests that this wording be amended to that which was used by the Secretary of State (SoS) while deciding on this issue in the Tilbury 2 application. Natural England also refers to the representations and submissions on arbitration submitted during the recent Hornsea 3, Vanguard and Thanet Extension applications.		We have liased with the Applicant on this issue, this is outlined in NE Deadline 1 Annex G1b. In the Vanguard decision similar arbitration and appeals mechanism for the DML conditions were removed. There is ongoing disagreement.	
4	Many areas and volumes are given as m2 and m3, they should be m <sup>2</sup> or m <sup>3</sup> .		The Applicant agreed to make these changes [AS- 036] in the updated version of the draft DCO. We will review the next DCO and confirm.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
5	No volumes or areas of cable protection are provided. Given the potential for significant impact from these works they should be appropriately recoded here. However, it is noted these volumes and areas are recorded within the DMLs. However, the Environmental Statement (ES) project descriptions have separate areas of cable protection for the cable crossings. Clarification is needed to explain whether these volumes are recorded within the totals provided within the DMLs or if they are additional to the DML volumes. If additional then these additional volumes should be recorded in the DCO/DML appropriately to ensure the maximums are clearly stated and enforceable. No volumes or areas of disposal are provided here. Maximum amount of disposal should be provided and split into hard substrate (drill arisings) boulder relocation and soft sediments (sandwave levelling and ground preparation). However, it is noted the total volumes are recorded within the DMLs and split according to activity. This application and project description includes detonation of UXO. If these works are to be licenced and given the significant potential for impact the maximum number of detonations and the maximum size of detonation (size of UXO in kg) should be recorded. These factors should also be recorded in the DMLs to ensure no works outside of the scope of the ES details take place.		The Applicant stated [AS-036] that deposits are licensable marine activities and are therefore regulated by the DMLs, there is no need for these area or volumes to be specified in schedule 1 of the DCO. We informed the applicant that we disagree. More details can be seen in NE Deadline 1 Annex G1b.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
6	The relevant statutory nature conservation body should be named as a consultee on the updated Code of Construction Practice (CoCP). This is to ensure the appropriate environmental considerations are provided within these documents.		The Applicant stated [AS-036] that they do not consider it necessary to name NE as a consultee on the face of the DCO in respect of the CoCP. We disagree please see NE Deadline 1 Annex G1b.	
7	The relevant statutory nature conservation body should be named as a consultee on the onshore decommissioning plan. This is to ensure appropriate ecological mitigation and considerations are made within the decommissioning works.		The Applicant agreed to update requirement 30 (Onshore decommissioning) of the draft DCO to include the relevant SNCB as a consultee in respect of the onshore decommissioning plan [AS- 036]. Once we have seen an updated draft this issue will be resolved.	
8	This requirement makes it clear that onshore connection works built under one order can only be built on one order and not both. However, Natural England questions if this requirement adequately ensures that any ongoing monitoring or mitigation works for those areas are clearly secured. Natural England considers it logical that the party who constructed the works should hold responsibility for any required ongoing requirements.		The Applicant stated [AS-036] that under Article 5 the obligations would transfer to the new owner.	
9	Definitions of "commence", "offshore preparation works" and "maintain" are not acceptable, see points 1 and 2.		See issues 1 and 2 above.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
10	This condition requires a notification of completion of construction activities. Does this condition adequately ensure that no further construction activities can be undertaken under this DML? Natural England considers that this is a notification only. To ensure clarity on the end of the construction period and the start of the operation period and to appropriately trigger the post-construction conditions, Natural England considers that a separate condition may be needed to require the applicant to inform once all construction activities have completed and that no further construction works will be required under this licence. Recent projects have implied that as their DCO and DML has no requirement or condition ending construction they can complete construction activities throughout the lifetime of the project. Natural England does not consider this appropriate.		The Applicant has stated that they do not consider the condition we proposed as appropriate [AS- 036]. There is ongoing disagreement on this issue.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
11	<ul> <li>Natural England notes the inclusion of these conditions to ensure removal of UXO can proceed without inclusion under commencement. However, these works also require consideration of potential benthic impacts, such as biogenic reef. The requirement to preform pre-construction surveys to inform micro-siting of cables must be included here to ensure appropriate mitigation. The current drafting has no timing requirements for submission. They need to be submitted a minimum of 6 months prior to the detonation.</li> <li>However, Natural England considers this work to lead to significant duplication of effort for post-construction document approval. Therefore, Natural England advises inclusion of UXO within the definition of "commence" and the sign off of plans within the pre-construction conditions.</li> <li>Furthermore, Natural England considers that conditions should be added to DMLs ensure that:</li> <li>Only 1 UXO is detonated across both EA2 and EA1N within a 24 hour period.</li> <li>No piling will occur concurrent to the UXO detonation or within 24 hours of a detonation.</li> <li>Only 1 piling event can occur across EA2 and EA1N within any 24 hour period.</li> <li>A Co-operation Plan/Agreement will be required between EA1N and EA2 in the event that construction periods overlap.</li> <li>These are key mitigations proposed within the outline Site Integrity Plan (SIP) page 30 section 6.1 and should be appropriately secured through condition.</li> </ul>		This issue is under discussion, please see NE Deadline 1 Annex G1b.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
12	The condition allows for changes to the cable protection if proposed following cable laying operations. However, there is no end date within the condition. Natural England's joint position with the MMO is that it is not appropriate for cable protection to be deployed throughout the operation and maintenance (O&M) phase of a project. This is due to the very large spatial and temporal scale of these licenced works, giving a Rochdale Envelope that is too undefined to appropriately assess. An end date should be included based on the proposals within the Natural England and MMO joint position statement. Any cable protection works after this end date should be licenced separately. It should also be noted that further surveys would be required to confirm the presence/absence of Sabellaria reef, such as is required prior to construction.		See point 2 above.	
13	Natural England considers that within these conditions the requirements to conduct ornithological monitoring (as outlined in the In Principle Monitoring Plan) should be secured.		The Applicant intends to update draft DCO to be submitted at Deadline 3. NE will provide further advice after Deadline 3.	
14	All issues raised under Schedule 13 also apply to Schedule 14 where similar conditions exist.			
	Please see point 3 regarding Arbitration.			
Docum	ent Used: 8.12 EA2 Outline Offshore Operations and Maintenance Plans			



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
16	The definition of green items states that these items may go ahead and that no additional Marine Licences are needed, but that notification may be required. This is not entirely accurate, some of the items listed as green require resubmission of plans and documentation and further approvals from the MMO. Natural England suggests that the text is amended to reflect that some green items will require approval and not just notification.		As discussed at a workshop on the 10.08.20 the outline OOMP will be updated and resubmitted by the Applicant at Deadline 3. NE will provide an updated response after Deadline 3.	
17	Cable burial using surface protection: Natural England assumes this refers to deployment of cable protection, although the table is not clear on this point. This is listed as green indicating that a further marine licence is not required. Natural England does not agree and considers this should be amber. Please see point 2 and the MMO and Natural England position statements on cable protection. This issue is replicated in the transmission section of the plan and both sections should be amended.		Please see point 2 above.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
18	Scour protection is listed within the table as green. Therefore, it may be deployed with no additional licence required. This should be changed to amber. Scour protection may be deployed up until the maximum assessed in the ES. Any additional protection above the amount assessed in the ES would need additional licences. Natural England advises that maximum amount allowed should be based on the maximum amount assessed in the ES for the individual foundation type. Not the total assessed volume of scour for the entire project and the document should be amended to reflect this. This issue is replicated in the transmission section of the plan and both sections should be amended.		As discussed at a workshop on the 10.08.20 the outline OOMP will be updated and resubmitted by the Applicant at Deadline 3. NE will provide an updated response after Deadline 3.	



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
19	Natural England does not consider it appropriate to grant a licence to detonate UXO over such a long period of time as the lifetime of the project. This is especially relevant to projects located within the Southern North Sea Special Area Of Conservation (SAC) where detonation could have significant impacts and should be assessed based on updated information to show consideration of such things as in-combination impacts. Notwithstanding our arguments above, if it is decided that it is appropriate to include UXO detonation for the lifetime of the project, then Natural England notes that UXO detonations are listed as green. Natural England would advise that this should be listed as amber as the ES has assessed only a total of 80 detonations up to a maximum size of 700kg and therefore if more than 80 UXO's are found, or a UXO of size greater than 700kg, a new Marine Licence would be required. Additionally, consent will be required for disturbance of European Protected Species (EPS) for all instances and, therefore, it may be more appropriate to list this as red. However, in all instances the need for the EPS consent should be appropriately reflected in this document to ensure appropriate consent is sought within a reasonable time frame.		The Applicant stated that they do no intend on carrying out UXO clearance throughout the operational period and this will be corrected in the OOMP [AS-036]. As discussed at a workshop on the 10.08.20 the outline OOMP will be updated and resubmitted into Examination at Deadline 3.	
Docum	ent Used: 8.13 EA2 Offshore In Principle Monitoring Plan			



Point	Taken from Natural England's Relevant and Written Representations EA1N Appendix G - Development Consent Order, Deemed Marine Licences and related certified documentation	RAG Status Rel and WR Rep	Consultation, actions, progression	RAG status Deadline 1
20	The proposed benthic monitoring only considers construction activities. The requirement for monitoring for O&M activities, which directly impact the seabed, should be included. This monitoring will be required in the form of geophysical and ground truthing (drop down video) surveys for any areas which have no monitoring and no construction activity within 2 years prior to the proposed O&M works. The post-construction structural/engineering surveys suggested in Table 1 could be used to inform any monitoring should they be in the appropriate location and within an appropriate timeframe.		The Applicant stated that they would like to see the cable protection paper by Natural England [AS- 036]. This was sent to the Applicant, this matter relates to point 2 above. This matter is ongoing. Please see NE Deadline 1 Annex G1b.	
21	Natural England notes that we would like to engage with the applicant on the potential monitoring requirements for marine mammals and the potential for contribution to strategic monitoring. Following this discussion there may be a need to update this section to better reflect the monitoring that will be required.		There is ongoing discussion on this matter.	
22	Natural England refers to our points 47 and 48 in Annex A Offshore Ornithology.		Please see point 31 of the Offshore Ornithology tab.	