



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES
2010

Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms

Appendix A2 to the Natural England Deadline 5 Submission

**Natural England's Further Response to 9.5 Offshore In Principle Monitoring
Plan (Revision B) [REP4-015]**

For:

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

Planning Inspectorate Reference: EN010109

13th June 2023

Appendix A2 - Natural England's Comments on Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP) Offshore In-Principle Monitoring Plan (IPMP) Revision B [REP4-015]

1. Introduction

In response to our comments at Deadline 1 [REP1-136], Natural England welcomes the response and further updates by the Applicant to the Sheringham Shoal Offshore Wind Farm Extension Project (SEP) and Dudgeon Offshore Wind Farm Extension Project (DEP) Offshore In Principle Monitoring Plan (Revision B) [REP4-015].

Table 1 below sets out Natural England's further response to these comments and continued overarching concerns with the IPMP.

Table 1 Natural England’s Overarching Comments on the Offshore In Principle Monitoring Plan (Revision B) [REP4-014]

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant’s Response [REP1-014]	Natural England Response at Deadline 5
2) Overarching Concerns with the IPMP			
1	<p>3. In recognition of the emphasis currently being placed by projects in the post consent phase on the IPMP when setting the monitoring requirements and parameters; Natural England highlights the importance of the IPMP. Natural England is therefore not supportive of the Applicant’s proposal to postpone fundamental discussions regarding the scope and purpose of the monitoring to the post consent phase.</p>	<p>As set out in Section 1.3, as an in-principle document, the Offshore IPMP is only intended to provide a framework for further discussions post consent to agree the exact detail (timings, methodologies etc.) of the monitoring that is required. This is the accepted and standard approach. However, where possible and relevant to do so, further detail has been added to this version of the document in response to the specific comments that have been made.</p>	<p>Natural England advises that there is a misunderstanding between the Applicant and Natural England on the purpose of the IPMP and in providing our advice Natural England is drawing on our wealth of experience of post-consent monitoring discussions and implementation. This includes our advice for more recent IPMPs than Dogger Bank. We strongly advise that rather than focusing on the exact details of the surveys as highlighted by the Applicant in the updated IPMP; the IPMP should set out the fundamental hypotheses/questions that will be tested by the monitoring based on the outcomes of the HRA, EIA and address issues of uncertainty and/or residual impacts.</p> <p>In addition, Natural England highlights that, while there is agreement that IPMPs are finalised post consent based on project design and timescales; we do not agree that the approach taken for the Dogger Bank project is a standardised approach. Lessons have been learnt since the development of the IPMP for those projects, which are based upon ongoing and reoccurring post-consent disagreements with the developers on</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
			ecological monitoring requirements and survey effort required in order demonstrate key predictions of the Environmental Statement and/or HRA. Our advice on the content of the IPMP for SEP and DEP is consistent with that provided for the EA1N and EA2 examination [REP5-086] .
2	<p>4. Overall, Natural England feels that much more detail is required than is provided in the IPMP in its current form. For example;</p> <ul style="list-style-type: none"> • what are the hypotheses the monitoring will be testing? • how will the monitoring be designed to ensure that the desired outcomes can be achieved i.e. is the monitoring fit for purpose? • What are the indicative timings of the surveys? How will the various build-out scenarios be considered when designing the monitoring and will a construction gap of 2-4 years warrant additional monitoring? Also, will the construction of the second project skew or impact on the monitoring of the first? • Can lessons be learnt from previous thematic surveys and how will modifications to surveys design be incorporated between survey 	<p>As above. Also:</p> <ul style="list-style-type: none"> • Information on how the build-out scenarios will be considered in the monitoring plans is provided in Section 1.3. • Reference to using any lessons learnt from the existing SOW and DOW monitoring programmes has been added to Section 1.3. 	<p>Natural England is content to leave fine tuning of the IPMP to post-consent in relation to the build out scenarios only.</p> <p>However, we do expect all of our other queries to be considered within the IPMP and highlight the risks with not considering possible implications for monitoring from the various build out scenarios at the consenting phase, including additional survey campaigns..</p> <p>Natural England queries if the views of the MMO been sought as the regulator for the monitoring post-consent.</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
	<p>campaigns?</p> <ul style="list-style-type: none"> • What does 'success' look like to demonstrate that no further monitoring is required? • What happens if the results do not support the null hypothesis? Is further monitoring required (with/without modifications)? If impacts are greater than predicted, do actions need to be undertaken to address the impact? How will the further monitoring and actions be secured, is a change to the wording of the dML required? And if so, how will success of any action/s be monitored and what will be the success criteria before monitoring can cease? 		
3	<p>5. To answer the above, Natural England considers the IPMP should consider what the uncertainties and evidence gaps of the EIA/HRA are, rather than repeating the outcomes of the EIA/HRA. We consider that establishing the uncertainties and evidence gaps of the EIA/HRA is necessary to inform what monitoring should be undertaken. We also note that this may be different depending on scale of development within any of the 3 areas included in the DCO boundary; and features present and/or utilising the area.</p>	<p>As set out in Section 1.3, one of the guiding principles of the Offshore IPMP is that "Monitoring should be targeted to address significant evidence gaps or uncertainty, which are relevant to SEP and DEP and can be realistically filled, as well as those species or features considered to be the most sensitive to SEP and DEP impacts including those of conservation, ecological and/or economic importance".</p> <p>This has been accounted for in the development of the in-principle proposals set out in Section 1.6 and will inform the further development of the detailed</p>	<p>Natural England does not agree with pushing the identification of key monitoring requirements to post consent. Many of the detailed discussions during pre-Application and examination are lost between examination and pre-construction such that the Applicant and regulators can only rely on the contents of the IPMP. It is our pre-construction experience across multiple projects, of monitoring requirements in which consent decisions are based, becoming open to challenge, and/or monitoring not being fully fit for purpose. Please see other responses provided within this response.</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
		monitoring plans at the post-consent stage.	
4	6. Similarly, Natural England wishes to highlight the importance that all relevant monitoring proposals for SEP and DEP and/or associated DCO/dML conditions consider the aim of securing a mechanism for adaptive monitoring when unforeseen impacts are detected. Thus, ensuring remedial measures (i.e., adaptive management) are triggered should the results of monitoring demonstrate impacts are significantly greater than predicted and/or incorrect assumptions were concluded following review of the environmental statement and supporting documents. We advise the bulleted list in paragraph 20 of the Offshore IPMP [App-289] omits this key consideration, and that the potential for certain monitoring to trigger the development of countermeasures (with associated monitoring of those measures) should be clearly stated in relevant tables of the IPMP and incorporated into the DCO conditions where relevant.	As set out in Section 1.3, one of the guiding principles of the Offshore IPMP is that "The scope and design of all monitoring work should be finalised and agreed following review of the results of any preceding survey and / or monitoring work (i.e. an adaptive approach), including those surveys conducted in support of the EIA. This includes the potential for survey requirements to be adapted based on the results of the monitoring outlined in this document. Where it has been agreed that there are no significant impacts, monitoring need not be conditioned through the DMLs." (emphasis added). Reference to 'unforeseen impacts' and 'adaptive management' has been added to this section.	Natural England notes that the additional text allows for adaptive management measures to be considered. However, the text does not provide the necessary assurances that adaptive management measures 'will' be undertaken and does not include commitments to ongoing monitoring that would be required should design changes and /or unforeseen impacts occur. The wording within the DCO monitoring condition should be updated such that the regulator can require further mitigation measures and monitoring thereof should it deem it necessary.
5	7. Natural England advises an approach mechanism in which the Applicant presents a clearly defined hypothesis or null hypothesis of no impact would be beneficial. Monitoring thereafter would aim to test this. We advise a review period during which SNCBs and regulatory bodies such as the Marine Management Organisation are consulted by the Applicant to assess the results of the first	Noted – the in-principle proposals for monitoring are provided in Section 1.6 including the headline reason/s for monitoring and outline details of the monitoring proposed. As above, the exact details of the monitoring will be agreed at the post-consent stage as per the accepted and standard approach.	Natural England draws your attention to our previous responses. Natural England highlights that, while there is agreement that in principle monitoring plans are finalised post consent based on project design and timescales; we do not agree that the approach taken for Dogger Bank is a standardised approach.

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
	<p>period of monitoring. For example, one mechanism that could be introduced for particular receptors would be a live document which is reflective of what the monitoring is observing.</p>	<p>The requirements for the carrying out of the agreed surveys and providing the agreed reports are included in the DMLs. The Applicant notes that in practice, the MMO consults with key stakeholders including Natural England on the results of the monitoring as it is undertaken and considers that this provides the appropriate mechanism to review and agree any necessary changes to the monitoring programmes going forward from that point.</p>	<p>Lessons have been learnt since the development of the IPMP for those projects, which are based upon ongoing and reoccurring post-consent disagreements with the developers on ecological monitoring requirements and survey effort required in order demonstrate key predictions of the Environmental Statement and/or HRA. Our advice on the content of the IPMP for SEP and DEP is consistent with that provided for the EA1N and EA2 examination [REP5-086].</p>
6	<p>8. We advise that monitoring should be effective in providing evidence on the effectiveness of mitigation measures, to ensure compliance with measures identified in assessments to mitigate significant impacts and provide evidence to assess the significance of adverse effects, evaluate the success of compensation measures and to help inform whether further remedial measures are required. Though we do recognise that in principle monitoring required for compensation packages may be set out in other documents and therefore this document should clearly signpost the sections of the relevant (DCO) named plans.</p>	<p>Agreed with respect to monitoring the effectiveness of mitigation measures. Monitoring requirements in relation to compensation and/or MEEB are addressed in the compensation/MEEB plans. As suggested, reference to the relevant documents has been added to Section 1.1.</p>	<p>Natural England would wish to see the monitoring of the effectiveness of mitigation measures included as a hypotheses to be tested through monitoring.</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
7	<p>9. We draw the Applicants and other interested parties' attention to the fact that the MMO 2014 monitoring review is now 9 years old and based on evidence gathered from Round 1 and some Round 2 windfarms over 10 years ago. Since then, technology has progressed and the scale and number of offshore windfarm developments has considerably changed as has our understanding of the impacts. Therefore, we advise that the MMO review should be a starting place to understand potential monitoring, but more recent best practice guidance and lessons learnt should also be taken into account.</p>	<p>Noted, Section 1.3 has been updated accordingly.</p>	<p>Noted and Natural England agrees with the update.</p>
3) Thematic Specific Advice			
8	<p>3.1 Section 1.4.2 Marine Physical Processes 10.</p> <p>It is unclear to Natural England what the purpose of the monitoring is. We request that further details are provided to answer the questions posed in our overarching comments.</p>	<p>The potential effects to be investigated by the monitoring, the headline reason/s for monitoring and outline details of the monitoring proposal are clearly set out in Table 4. In this case this includes monitoring any changes in sea bed level and the sediment transport regime, including scour processes. This will provide information on, for example, sand wave recovery and sand wave migration.</p> <p>As stated in Table 4, because the proposal includes full sea bed coverage swath bathymetric, MBES and SSS surveys, the monitoring will provide a full understanding of the recovery of the</p>	<p>We welcome the proposed monitoring for Cromer Shoal Chalk Beds Marine Conservation Zone (CSCB MCZ) including sea bed level change and scour/secondary scour. However, we advise more detail is required.</p> <p>For ease of reference, Table 3 should be presented ahead of Table 4, or the table numbering could be amended.</p> <p>Natural England welcomes the inclusion of Table 3 which outlines a scope of work to support development of detailed plans for cable installation to maximise the chance of burial success for SEP and DEP (in the CSCB MCZ).</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
		<p>physical form of the seabed following construction, in the same manner that has been achieved on the existing SOW and DOW (and which confirmed the absence of any significant effects).</p>	<p>We welcome the inclusion of sandwave/bank migration and recovery monitoring. We advise the hypothesis to be tested is outlined.</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
9	<p>3.2 Section 1.4.3 Water and Sediment Quality</p> <p>11. In light of sediment disposal potentially across the construction area including Cromer Shoal MCZ, we consider pre-construction sediment contaminant monitoring will be required for the purposes of suitability for sediment disposal. We advise this must be agreed with the MMO/CEFAS and secured within the DCO/DML.</p>	<p>Further contaminants sampling and analysis will be undertaken post-consent to inform the licence for the disposal of sediment at sea, which will be applied for post-consent. Condition wording, as agreed with the MMO, to secure the requirement for post-consent contaminants sampling was included with the Draft DCO (Revision F) [REP3-009] at Deadline 3. The Applicant therefore proposes to withhold any further updates to the Disposal Site Characterisation Report [APP-300] until the post-consent stage when more accurate details on the design (e.g. foundation types) and therefore quantities of material that are required to be disposed of, are known. This will enable a more accurate assessment to be undertaken. This approach has been agreed with the MMO (see Draft SoCG with MMO (Revision B) [REP3-078]).</p>	

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
10	<p>3.3 Section 1.4.4 Benthic Ecology 12. Natural England highlights that unlike the original Dudgeon and Sheringham Shoal Projects, the extension projects have included a requirement for cable protection within the Cromer Shoal Chalk Beds MCZ. Thereby, the results can't be fully extrapolated. Natural England advises that a monitoring plan for any cable protection within the MCZ is included with the IPMP and secured within the DCO.</p> <p>13. Natural England also advises that monitoring of any areas of priority habitats is undertaken pre and post construction to inform any mitigation measures and ensure the effectiveness of those measures. If it is found that measures have been insufficient then further measures and/or remediation may be required to ensure the projects remain beneficial to the environment.</p>	<p>12. Details of the proposals for monitoring cables, including cable protection, are required to be included with the construction method statement, as set out in the relevant DMLs. From an ecological perspective, the Applicant agrees that, in the event that external cable protection is installed in the MCZ, post- construction monitoring may be able to provide further useful information to help confirm the extent and nature of the impact. This monitoring is included in Table 5.</p> <p>13. Monitoring requirements for priority habitats are included in the Offshore IPMP, see Table 5 below.</p>	<p>We welcome the proposed monitoring for Cromer Shoal Chalk Beds Marine Conservation Zone (CSCB MCZ). Including seabed level change and scour/secondary scour. However, we advise more detail is required.</p>
11	<p>3.4 Section 1.4.5 Fish and Shellfish Ecology</p> <p>14. Natural England advises that the undertaking of fish surveys could be considered as a secondary compensation measure for North Norfolk Sandwich terns by filling evidence gaps in relation to prey (namely sandeel, herring) availability which are potentially limiting colony size. This data could then inform appropriate site management measures and would be considered to be beneficial for nature</p>	<p>14. The Applicant held a meeting on 23 February 2023 with Natural England, MMO and Cefas to discuss these opportunities. It is noted that the opportunity is relevant both to the requirement for compensatory measures for Sandwich tern, but also in more general ecological terms. It should be noted that monitoring requirements in relation to compensation are addressed in the compensation plans (see Section 1.1). However, in either case the</p>	<p>Natural England's advice at Deadline 1 [REP1-136] in relation to undertaking fish surveys as secondary compensation measure and monitoring of fish availability for Annex I bird species will be required as this area is currently located in a foraging area for Sandwich terns remains unchanged.</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
	<p>conservation</p> <p>15. Natural England advises that should DEP North be taken forwards then monitoring of impacts to fish availability for Annex I bird species will be required as this area is currently located in a foraging area for Sandwich terns.</p>	<p>Applicant considers that the discussions have not reached a suitable level of maturity in order to be able to include any specific requirement in the Offshore IPMP. For example, this includes the identification of a suitable monitoring technique and understanding whether this would actually enable a better understanding of prey availability. The Applicant remains committed to progressing these discussions for further consideration post consent.</p> <p>15. As above. For the avoidance of doubt, the Applicant's position on monitoring requirements is the same regardless of the development scenario in question.</p>	
	<p>3.5 Section 1.4.6 Marine Mammals</p>		

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
12	<p>16. The Applicant has presented the conclusions of the Environmental Statement only. We advise that the Applications should also present:</p> <p>a. The conclusions of the RIAA, include impacts that are approaching adverse effect;</p> <p>b. Where there are areas of “high uncertainty or low confidence” in the data and/or assessment; as these are also valid targets of post-consent monitoring.</p> <p>17. We strongly advise that the IPMP is updated accordingly, to ensure that all current and residual concerns as outlined in our relevant and written representation [RR-063] are captured and can be considered for monitoring (see Annex A for best practice guidance on post consent monitoring).</p>	<p>Section 1.6.7 has been updated to include the conclusions of the Report to Inform Appropriate Assessment (RIAA) [APP-059] and Marine Mammals Technical Note and Addendum [REP3-115].</p>	<p>The Applicant has provided further information in the IPMP that was specifically requested in relation to marine mammals (presenting updated conclusions from the RIAA and ES; assumptions and knowledge gaps). They have also presented options that would evidence the impacts to marine mammals, and also demonstrate the effectiveness of mitigation. Nevertheless, as outlined in our response to the Offshore IPMP at Deadline 1 (see Paragraph 4), we consider that further detail is still required.</p>
13	<p>18. Furthermore, the IPMP should be updated to reflect the conclusions of any impact assessment(s) that are revised in accordance with Appendix D to the Relevant Representations of Natural England [RR-063]. This will inform further potential targets for monitoring</p>		
14	<p>19. It is important to note that the underwater noise monitoring is aimed at validating the change in the marine environment (in terms of underwater noise levels); it does not monitor the response of animals to the noise. This monitoring is undertaken primarily to confirm</p>	<p>The proposed marine mammal monitoring for SEP and DEP (as provided in Section 1.6.7) has been updated accordingly.</p>	

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
	<p>that the mitigation measures in the MMMP are sufficient to minimize the risk of injury to animals. The relationship between underwater noise levels and the response of animals is still highly uncertain and could benefit from further monitoring. Natural England is concerned that no monitoring has been outlined that would evidence the impacts to marine mammals e.g., monitoring animal responses to impacts. Please note that if it is found that the mitigation measures are insufficient then it must be secured in the DCO or Marine Mammal Mitigation and Site Integrity plans that action must be taken to address the issues and further monitored</p>		
15	<p>20. Natural England does not consider that "compliance monitoring" in the MMMP e.g., monitoring of the mitigation zone prior to the commencement of noisy activities (piling) is monitoring for the purpose of the IPMP. Reference to this monitoring should be removed. If the Applicant is proposing additional monitoring to validate the effectiveness of mitigation measures in the MMMP, more details must be provided.</p>	<p>References to this type of monitoring has been removed.</p>	
16	<p>21. Similarly, reporting or recording that is done under the Site Integrity Plan does not constitute monitoring for the purpose of the IPMP. If the Applicant is proposing additional monitoring to validate the effectiveness of mitigation measures in the Site Integrity Plan, Natural England advises more details must be provided.</p>		

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
17	22. To our knowledge the Offshore Wind Strategic Monitoring Research Forum is focused on ornithological receptors (https://jncc.gov.uk/our-work/owsmrf/). Therefore, the applicability of this forum to develop and co-ordinate strategic marine mammal monitoring remains uncertain.	The Applicant will keep informed of any strategic monitoring projects (such as through the Offshore Renewables Joint Industry Project (ORJIP) or Defra's Offshore Wind Enabling Actions Programme (OWEAP) that could offer strategic monitoring opportunities and will discuss these with Natural England and MMO in preparing the detailed monitoring plans post consent.	
18	23. Further information on strategic monitoring options is needed to understand whether it could be considered for post-consent monitoring.		
3.5 Section 1.4.7 Offshore Ornithology			
19	24. Natural England notes that overall, the emphasis in the Offshore IPMP in relation to ornithology is focused on EIA rather than the HRA assessment. Natural England advises emphasis should be on species that have been at or close to adverse effect under HRA, or particular areas of uncertainty (e.g., apportioning, demographic parameters).	Additional species have been included within Table 8 to address this comment.	Noted, NE agree with the species listed.
20	25. The offshore ornithology monitoring section of the IPMP focuses solely on Sandwich tern for which it is noted the Applicant has submitted derogation proposals. For Sandwich tern specific monitoring, we advise that links to derogations case documents are provided for transparency and ease of cross-referencing. Similarly for any other species where a	Monitoring requirements in relation to compensation are addressed in the compensation plans. As suggested, reference to the relevant documents has been added to Section 1.1.	No further action needed.

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
	derogations case is potentially required.		
21	26. We advise that the IPMP should consider collision risk impacts from the operational windfarm to a wider set of key species. These include great black-backed gull at the EIA scale, and the predicted impacts presented for Flamborough Filey Coast SPA for kittiwake as well as Sandwich tern for the North Norfolk Coast SPA.	These species have been added to Table 8.	We suggest it would be helpful to have a table setting out the quantified level of effect to the species under consideration (i.e., the number of collisions predicted for ST at NNC SPA, the number of collisions of GBBG, the range of displacement induced mortality for guillemot and razorbill at FFC SPA). We advise this compilation of values relevant to the monitoring should also refer to the level of compensation being offered (so in the case of ST and Kittiwake this should include the 95% CI), and/or be clearly linked to the integrity judgements reached by the Applicant and Natural England. This quantification should form the basis of an over-arching hypothesis for each species listed.
22	27. In addition, it is noted that other receptors of concern i.e., auks and red-throated diver, are not mentioned. Natural England seeks further information regarding the rationale for this omission and advises monitoring for these species should be included in the IPMP at this stage of its development.	These species have been added to Table 8.	Issues should be listed that contribute to the uncertainty for each species. As, an example for sandwich tern this may be - flight height, macro-avoidance (as CRM assumes no macro-avoidance in the case of ST), the AR etc.
23	<p>28. As such, Natural England advises the following approach to offshore ornithology monitoring:</p> <p>a. Monitoring of species/impacts subject to compensation (kittiwake, Sandwich tern and potentially guillemots/razorbills and red-throated diver) should be conducted at the windfarm site as well as at the compensation sites.</p> <p>b. Other species that are close to adverse effect (under HRA) or moderate adverse</p>	These have been added to Table 8.	For Guillemot this may be - rate of displacement, mortality due to displacement,

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
	<p>(under EIA) to be included as targets for monitoring. We believe that this is likely to include great black-backed gull, as identified by the Applicant, but might also include other species identified through the course of the Examination.</p> <p>c. Any other key areas of uncertainty that feed into the impact assessment should be included, for example Sandwich tern flight speed/flight height, survival rates etc.</p>		<p>connectivity with FFC, number of adults present).</p> <p>For RTD this may be - level of extent of displacement due to arrays, , disturbance response to vessels.</p> <p>Hypotheses should be formed based on these uncertainties. For example; <i>'Sandwich tern flight speed is as presented in Fijn and Gyemesi (2018)'</i></p> <p>Proposals should be outlined that specifically address these hypotheses, noting that not all will be possible to be addressed by SEP and DEP.</p> <p>There will also be uncertainty regarding the level of impact to the population in question arising from the effect (in the case of integrity judgements based on population level impacts). For example - HPAI, survival and productivity rates, apportioning. These should also be clearly listed, and where possible hypotheses formed that describe the assumptions made to reach integrity judgements. Again, recognising that not all hypotheses can be addressed.</p> <p>It is important that the SEP and DEP post-construction monitoring supplements the existing work already being done in the area</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
			<p>rather than conflicting with this. A summary of monitoring undertaken by DOW has been provided, which is welcomed; this is relevant to the development of a coherent and robust post-consent plan for SEP and DEP.</p> <p>However, we note there are many offshore windfarms with the Greater Wash area, all of which have/or will have had post consent monitoring in place, and for many the focus will be on the same suite of species as relevant to SEP and DEP. For example, Race Bank is using Digital surveys to look at distribution changes and lidar to measure sandwich tern flight height, Triton Knoll is installing collision monitoring equipment and Lincs conducted a comprehensive survey regime to look at changes in distribution.</p> <p>Therefore, we advise that when developing the specific methodological proposals to address the hypotheses identified, it will be crucial to review the past and current post consent monitoring underway in the Greater Wash (and other projects of relevance further afield), along with all other relevant data sources (such as the Greater Wash SPA condition monitoring surveys).</p>

ID/RAG Status	Natural England Deadline 1 Comment [REP1-136]	Applicant's Response [REP1-014]	Natural England Response at Deadline 5
24	29. The above approach is subject to Natural England's final position regarding these species and their associated adverse impacts. We advise the detailed plan is subject to agreement with Natural England.	Noted. Table 8 sets out options for in-principle monitoring. As set out in Section 1.6.8.3, the Applicant expects that not all measures would be taken forward to implementation, but that these will form the basis of discussion with Natural England to agree those most appropriate to take forward. Detailed plans can be developed for agreement with Natural England.	To clarify – Natural England has provided final positions on gannet at FFC SPA, kittiwake at FFC SPA, Sandwich tern at NNC/GW SPA (alone and in combination) and guillemot, razorbill and the seabird assemblage at FFC SPA (alone). Natural England has yet to provide final positions on guillemot, razorbill and the seabird assemblage at FFC SPA in combination, RTD at GW SPA (alone and in-combination) and RTD at OTE SPA (in-combination). These positions are summarised in Table 2 of our Deadline 5 response.