From: Brown, Emma [mailto:Emma.Brown@naturalengland.org.uk]
Sent: 08 February 2019 17:22
To: Hornsea Project Three
Subject: Hornsea Project Three Deadline 6 Submissions

Good Afternoon,

Please find Natural England's Written Submissions for Deadline 6 of the Hornsea Project Three Offshore Windfarm examination attached.

This includes our written summaries of the Offshore Ecology and DCO Issue Specific Hearings, along with several Annexes which are provided in response to requests made by the Examiner.

Please note Natural England are not providing a response to the Examiners' questions relating to Markham's Triangle MCZ within this submission.

Natural England has reviewed the relevant documents in consultation with JNCC and have prepared a response but we have subsequently received an email from the Applicant offering further clarification. Unfortunately it has not been possible for us to consider this new information in time for today's deadline, but we intend to give this further consideration and provide a response in due course.

Kind regards,

Emma

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Please note I currently work Monday - Thursday

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# THE PLANNING ACT 2008

# THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

# HORNSEA PROJECT THREE OFFSHORE WIND FARM

Planning Inspectorate Reference: EN010080

# NATURAL ENGLAND

WRITTEN SUBMISSION FOR DEADLINE 6

Written Submission of Natural England's Representations at Issue Specific Hearing 5

**Offshore Ecology** 

Dated 7<sup>th</sup> February 2019

### Hornsea Project Three

### ISH 5: OFFSHORE ECOLOGY 29th January 2019

#### Written Summary of Natural England's Representations.

- 1. Natural England highlighted that there are now a huge number of documents associated with this application. The applicant has provided a number of annexes at each deadline, some of which include revised analyses, and in some cases there are subsequent revisions to revisions. As such it is no longer clear what the applicant's current position is, and how far this departs from their original ES. Natural England stressed that point is not only important for this examination, but will also be important for current and future applications which need to take account of this one in their cumulative and incombination assessments. [NB: It would also aid clarity on requirements of post consent/pre construction design parameters and commitment]. Natural England therefore requested clarification of the applicants' current position, with signposting to the relevant supporting documentation.
- 2. The applicant queried if this was specific to ornithology or wider issues and stated that they would like feedback from Natural England on the documents that had been submitted.
- 3. Natural England clarified that it is primarily the ornithology subject they wish to seek clarification on, but also some benthic issues. It is a challenge to keep track of the revisions and how these relate to the applicants overall position and how this might affect the decisions makers Appropriate Assessment. Natural England agreed to highlight these areas throughout the Hearing.
- 4. The Examiner referred to Natural England's Deadline 5 response [i.e. that Natural England were unable to consider the volume of documents submitted in line with the deadline]. There followed a conversation about which documents the ExA had questions on and whether or not these had been assessed by NE.
  - Appendix 4 Second Issue Specific Hearing clarifications in relation to offshore ornithology. REP5 – 012. (Ornithologists later confirmed they had reviewed this document)
  - Trenching Assessment REP 5- 010 Not reviewed by NE prior to ISH.
  - Revised Collision Risk Modelling REP 4-049. Reviewed
  - RSPB response. REP 4 137. Reviewed

- Bowgen and Cook Appendix 14. Rep 4-035. Reviewed
- Additional HRA Screening REP4-081. (Ornithologists later confirmed they had reviewed this document).
- Revised Population Assessment REP4 092. (Ornithologists later confirmed they reviewed this document).
- Biotope Classification REP4-097. NE had forwarded to JNCC Awaiting their comment.
- Response to interested parties. Rep 5-007. Reviewed.
- Applicant's response to other interested parties responses to the ExA. REP 5-008. Not reviewed by NE Prior to ISH
- Immature Auk Apportioning. 5-014. (Ornithologists later confirmed they reviewed this document).

[NB: With the exception of the Biotope Classification document, which was with JNCC for comment, the only documents highlighted that NE had not reviewed were submitted at deadline 5 and only available on the PINS website on Thursday 24<sup>th</sup> January -i.e. less than 2 working days prior to the hearing.]

5. The Examiner then called for a 25 minute adjournment so that the Applicant could run through the benthic documents that Natural England had not yet reviewed. It should be noted that during this time the Applicant summarised REP5-010, REP4-97 and Appendix 3 - Outline Cable Specification and Installation Plan REP5-011 which was not included in the above list.

#### Post adjournment discussion

- 6. Natural England stated that given the short amount of time available to discuss key documents [submitted at Deadline 5] the views expressed during the hearing would be preliminary and provided without prejudice to any formal response provided through the written responses.
- 7. The Examiner queried with the applicant if the matters raised by NE were a surprise in relation to the baseline characterisation and Applicant stated that they were a surprise, but that they felt these points have been dealt with.
- 8. Natural England stated that although there were discussions on the original cable route and survey methodology an alternative cable route was submitted in December 2017. Natural England also highlighted that throughout the Evidence Plan Process only snap shots of data were presentment and the

applicant's complete benthic data set along the export cable was only available with the finalised application.

- 9. The applicant clarified that the baseline characterisation of the Wash and North Norfolk Coast was not as much of a surprise. The surprise was around other areas.
- 10. Natural England stated that they raised concerns regarding the PEIR at the end of summer 2017 in relation to how the assessments were to be undertaken and there were comments regarding the baseline included as well.

[For clarity, the point here is that snapshots of information were provided within Expert working Group Meetings, so it was not possible to consider and advise on detail such as biotope classification at that time. As this detail has become available within the application and supplementary information provided through the course of the examination, Natural England (in consultation with JNCC) have advised accordingly.]

- 11. The Examiner queried why Natural England were unable to submit documents subject to copyright, when other parties had been able to do so. Natural England clarifi that the advice from their legal and access to information teams was that Natural England should not be submitting documents under copyright and that Natural England would need to get permission from the author [or authors] of the copyright document in order to do so.
- 12. The Examiner asked if the applicant could provide the papers and the applicant agreed. ExA give a list of the relevant documents to the applicant and NE, advising NE to speak to the applicant if there are any documents missing from the list that are required.

# **AGENDA 3: BENTHIC ECOLOGY**

### **AGENDA 3a Additional Commitments**

- 13. The Examiner referred to the additional commitments proposed by the applicant at deadline 4 and their Deadline 5 provision of a cable specification and installation plan (REP5 – 011) and trenching document (REP5- -010) and asked for Natural England's views.
- 14. Natural England explained that the applicant had rapidly explained the cable and specification and installation plan and the trenching document and need to consider these more fully. But that they were able to present an initial view on the decommissioning commitment, and the use of an Ecological Clerk of works.
- 15. Whilst Natural England welcomes the applicant's commitment to remove cable protection at the time of decommissioning, and would welcome the inclusion of this commitment in the conditions of the DCO/DMLs, it is important note that this should be subject to there being the available technology to do so without further causing further damage to designated sites.

- 16. Although the removal of the cable protection has been considered to be feasible mitigation in the past (for example Dogger Bank) there are now concerns about the feasibility of achieving this without causing further damage to site. Consequently Natural England no longer consider this commitment to constitute mitigation.
- 17. For example at Race Bank the option proposed for removal effectively involves 'dredging' the areas of cable protection. This would likely impact surrounding areas of the feature and potentially involve removing the underlying feature beneath the cable protection.
- 18. Natural England also notes that attempts to remove cable protection at Thanet OWF have failed and resulted in additional cable protection to that envisaged at the time of the original consent and having to install a replacement section of cable around the existing protection.
- 19. Therefore, it is based on information received from across the industry/s on the inability to remove cable protection that we have significant concerns about this and have therefore revised our original position on this option.
- 20. The examiner asked if this could result in the permanent loss of the feature.
- 21. Natural England confirmed that the dredging involved in removing infrastructure and the ensuing dredging of the feature would likely result in a permanent loss of the feature.
- 22. The Applicant pointed out that they had submitted a response at deadline 4 and will provide further information at deadline 6. The applicant went on to highlight that decommissioning will be 35 years in the future. The decommissioning tools may remove sediment now, but in the future these may well be improved to reduce the impact on the interest feature. The applicant suggested that the sand and gravel of the interest feature will recover.
- 23. Natural England stated that it acknowledges the possibility that the technology for decommissioning may have improved in 35 years' time, but that this does not allay Natural England's concerns as there is no guarantee there will be improvements to the decommissioning methods.
- 24. Natural England referred to the Wadden Sea ECJ case of 2004 and the reference to requirement for certainty beyond reasonable scientific doubt. Natural England advised that it was not say beyond reasonable scientific doubt that the interest features will recover. Whilst NE recognise that there is a possibility of recovery of the site and communities there is no guarantee that the same Annex 1 communities would be found in areas previously beneath the rock armour after the decommissioning stage.

- 25. The Examiner requested the applicant to respond to the Wadden Sea view, and the view that recovery could not be guaranteed in 35 years' time.
- 26. The applicant suggested that there were suitable techniques to remove rock armour [beyond those NE referred to] and that they would provide further detail in their deadline 6 submission. The applicant also advised that their positon was that even without the removal of cable protection it was possible to conclude that there will be no AEoI.
- 27. Natural England stated that they recognise the applicant's point on rock armour placement, but disagree on the significance of the impact.

#### Agenda 3. B Cable Protection:

- 28. The Examiner queried whether the replenishment rate would hinder recovery at the decommissioning phase.
- 29. The applicant explained that the 25% replenishment rate was considered within the RIAAA along with the long term habitat loss assessment. The Applicant advised that the cable specification and installation plan document sets out to clarify the footprint of the cable protection plan and the replenishment of rock protection and can be incorporated into the DML.
- 30. Natural England requested clarification on the 25% replenishment plan for rock protection and queried where the justification for 25% replenishment came from.
- 31. Applicant said they would take this query away and respond at deadline 6. The applicant went on to say it was a developing issue which has arisen in some of their other projects and 25% was the amount that was considered adequate.
- 32. Natural England referred to the impact assessment in the HRA and questioned whether the 25% related to 25% of the amount of cable protection specified in the DCO/DMLs or 25% of the amount of cable protection actually installed.
- 33. The applicant stated that the cable protection placed at the construction phase is not 100% of the cable protection, and that some of the 10% cable protection would be added throughout the operational lifetime of the project. They indicated that the 25% replenishment relates to additional rock that would be placed where the protection had winnowed away. The 25% relates to the maximum design scenario. 10% of the cable length is subject to rock protection, and 25% of that is what is assessed.
- 34. Natural England sought to clarify their understanding that 10% of the entire cable would require cable protection over the lifetime of the project. 25% of that 10% may require replenishment over the lifetime of the project. Natural England then questioned why the 25% had been separated out rather than added to the 10% figure to provide an overarching volume of rock, albeit without a definite location for its use. Natural England highlighted that the rock armour figures in the DCO are not based on area, they are based on volume.

Natural England went on to highlight that the Applicant needed to clarify the details of the 25%, to ensure it is dealt with appropriately within the HRA and that the volume and location of the cable protection needs to be more defined within the DCO/DML.

- 35. The MMO stated that the timings and quantities needed to be clarified in the DML.
- 36. Natural England's further highlighted a further concern that the scenario described by the applicant [within the hearing] appears to be different to the scenario described in the HRA.
- 37. The applicant stated that they had described the scenario from HRA, and suggested that any discussions on the DCO/DML conditions would be better placed at the DCO/DML hearing.
- 38. The applicant confirmed that a maximum of 10% of the cable within a designated site would require rock protection. Therefore of the total 1km of cable within the Cromer Shoal MCZ, a maximum of 10% of this may require rock protection. The MCZ and RIAA assessment are clear on these assumptions.
- 39. The Examiner commented that to summarise; the length of cable protection within an MPA will never be more than 10% of the length. And the replenishment would be within this 10% area and that is the maximum design scenario within MPAs.
- 40. Natural England: Natural England queried if the amount of cable protection permitted would decrease if there were fewer cables (e.g. With the HVDC scenario)
- 41. The applicant stated that the HVAC option needs to be kept open, and that is the scenario being requested to be considered for the DCO, so have considered worst case scenario (WCS) for this option.
- 42. Natural England accepted the applicant's comments regarding HVDC highlighted that it should be recognised that at the time of construction there will need to be regulatory control over the amount of cable protection. Should the applicant use HVDC infrastructure there should be a commitment that the cable protection is reduced equally.
- 43. The Examiner stated that this is a matter for draft DCO, so can be picked up in the DCO hearing.

[Natural England is unclear if this issue was fully addressed within the DCO/DML hearing]

44. The Examiner noted that in the applicant's response to ExA questions they had commented that Sheringham Shoal and Dudgeon more comparable to Hornsea Three than Race Bank

- 45. Natural England stated that if it could be demonstrated that Dudgeon and Sheringham Shoal were shown to have similar habitat to Hornsea 3 then this can be considered. However, the DDV video snapshots that had been presented as part of The Wash and North Norfolk Clarification note showed that consolidated mixed sediment was present that was comparable to Race Bank. Natural England highlighted concerns about the location, quantity and quality of the Dudgeon and Sheringham Shoal pre-construction survey data. [In addition NE would also highlight that different installation tools where used for these projects with Sheringham cutting into chalk.].
- 46. The Examiner noted that within Natural England's Deadline 4 submission they had highlighted that unexpected issues arose at Race Bank even with a post consent geotechnical survey and that this created impacts that were significantly greater than what was assessed in the appropriate assessment. The Examiner went on to ask Natural England how it would be possible to fully assess the WCS to enable consent and to deliver mitigation for this project.
- 47. Natural England stated that it was unlikely to be possible to assess the full extent of the WCS up front as there will always be unforeseen issues. However, Natural England stressed that it was important to be able to characterise interest features the site and associated ground conditions to gain an understanding of the likely scenarios up front to give as much certainty as possible and information suitably mitigation measures to minimise the impacts. There is inherent uncertainty in the Rochdale Envelope approach and the applicant is seeking a lot of flexibility in their approach to cable protection and sand wave levelling, which means that the impacts on designated site features are difficult to ascertain. Natural England has previously stated that there needs to be a cable burial risk assessment provided in support of the application, the aim of which should be to reduce variables to reduce AEoI., At the moment there is a high risk of AEoI due to lack of knowledge. The CSIP and trenching documents may allay concerns, but Natural England need to review it. The need for certainty beyond reasonable scientific doubt in relation to the Habitat Regulations as highlighted in case law remains an outstanding concern.
- 48. The Examiner requested that Natural England review the CSIP and report their conclusions.
- 49. Natural England stated that there are no such examples as most projects have encountered issues post consent.
- 50. Natural England stated that the Race Bank project that was assessed as part of the original application was so different to what was built the appropriate assessment (AA) was no longer fit for purpose. Additional AAs have been undertaken for further work however these have also not been fit for purpose because of 'unknown unknowns' that occurred during the installation.

- 51. In hindsight, based on the lessons learnt at Race Bank Natural England would approach the decision making process and the project as a whole very differently.
- 52. The Examiner asked if Natural England was on a learning curve with these projects.
- 53. Natural England confirmed that it was developing its knowledge of how to deal with these projects.
- 54. Natural England stated that their overarching position was that there is insufficient evidence to enable the applicant to demonstrate that the impacts on designated site features can reduced to an acceptable level. In the case of both the Wash and North Norfolk Coast and North Norfolk Sand Banks and Saturn Reef the sites are all annex 1 feature [i.e. there is no site fabric] with a mosaic of designated features. Whilst it is possible to identify potential mitigation options for an individual feature (e.g. avoiding reef features) may impact on other features.
- 55. In response the applicant stated that there were lessons learned from previous projects and that these have been incorporated within their design envelope. The applicant stated that they would need to undertake an additional assessment should they step outside of their consented envelope, and therefore requested that Natural England's comment pertain solely to their application.
- 56. Natural England explained that it was assessing the current design envelope and that the concern is around if the worst case scenario assessed for this project is appropriate. Previous projects have had worse outcomes than their worst case scenario had concluded, even with more data available to them at the time of application upon which to base their assessments on.
- 57. The Wildlife Trust commented that cabling in a designated site is an issue, particularly where the site was in unfavourable condition. The latest condition assessment for W&NNC means that the applicant needs to demonstrate that there would not be further deterioration of the site. Increased cable protection required post-consent need to be reviewed as well as the reasons for cable protection failure.
- 58. Natural England highlighted that the Wash and North Norfolk Coast SAC condition assessment has been published the previous day and confirmed that this was considered to be largely as a result of pressures associated with cabling and fisheries. Race Bank and Lincs OWF cables are a contributing factor. Natural England stated that subtidal mixed sediment, subtidal coarse sediment and intertidal mud and Intertidal sand and muddy sand were affected by OWF cable installation.
- 59. The applicant highlighted that they had not seen this information as it was just published yesterday. The reasons for Race Bank cable protection failure has been submitted in evidence.

- 60. Natural England stated that when parameters change significantly post consent the applicant, MMO and Natural England need to consider the impacts, potentially undertake appropriate assessments and address the possibilities of AEoI. This creates delays for the applicant and potentially incurs costs, the SNCBs have to invest a substantial proportion of limited resource and time to help resolve the issues which has implication for other OWF projects. Natural England therefore requests that the documents submitted by the applicant are fit for purpose and ensure that the need to rely on amendments post consent are minimised in order to allay further delays or costs for the developers. The variability of designated sites features/conditions make them difficult to assess. Natural England hope to finalise initial reviews of Race Bank which details these concerns before end of the examination for Hornsea 3, but cannot guarantee it.
- 61. The Examiner queried whether Natural England's advice was based on the applicant's cable burial assessment [Submitted at Deadline 5]
- 62. Natural England's understanding from discussions during the adjournment was that there is an assessment available, but they highlighted that they did not feel this would be sufficient to address concerns relating to the lack of information.
- 63. Natural England highlighted that they understood that there were two documents to consider. The Trenching document referred to the burial risks. The CSIP document sets how the cable will be e installed including control measures for doing so.

#### AGENDA 3c: Special Areas of Conservation.

- 64. The Examiner asked Natural England if there were any comprehensive surveys of Natura 2000 sites, that could be made available to the applicant.
- 65. Natural England explained that surveys undertaken by SNCBs are broad scale mapping surveys, undertaken with the aim of assessing site condition. The type of survey required in support of an application is different to the aforementioned surveys. There may be information available in relation to other development in the site such as oil and gas, but as the applicant is seeking avoid existing pipelines as far as possible it is unlikely that there will be significant overlap.
- 66. The Examiner asked how likely it would be that a suitable survey could be completed by April 2019?
- 67. Natural England stated that it was very unlikely that a suitable survey could be done by April 2019. Even if survey work were to commence immediately it would be unlikely that data could be analysed in time.
- 68. The Examiner asked Natural England to clarify their position.
- 69. Natural England advised that based on the information cannot currently rule out AEoI. Alternatives need to be considered.

- 70. The Examiner asked what Natural England advised their decision should be if adverse Effect of Integrity could not be ruled out.
- 71. Natural England stated that it was not their remit to reach a decision on behalf of the competent authority. Natural England are advising on whether AEoI can be ruled out beyond reasonable scientific doubt, which currently it cannot.
- 72. The Examiner stated that in their response to ExQs the applicant highlights that NE have stated that they are satisfied with the survey for the WNNC SAC.
- 73. Natural England stated that their previous response needed to be clarified as it was poorly worded. Under the terms of the EIA they are satisfied, however under the terms of the HRA they are not satisfied. [i.e. if the development area did not overlap any SACs or MCZs the level of coverage would be considered to be adequate].
- 74. The Examiner asked if Natural England's position also pertained to North Norfolk sandbanks and Saturn Reef SAC.
- 75. Natural England stated that additional documents had been submitted at deadline 4 with the intention of clarifying Natural England and JNCCs concerns and that Natural England intension is to respond regarding these surveys at deadline 6.
- 76. The Examiner highlighted that the infrastructure within Markham's Triangle has been reduced from 24% to 10% and asked what difference this would make to the array and in turn what impact has this on the Environmental Statement and how has it been assessed.
- 77. The applicant said they will respond to this point at deadline 6.
- 78. The Examiner asked Natural England if they agree that the reduction in use of Markham's Triangle and proposal to decommission will reduce the impact to the designated site.
- 79. Natural England suggested that they would request the relevant information from the applicant to discuss with JNCC, with a view to providing a response at deadline 6.
- 80. The Examiner asked for Natural England's thoughts on Applicant's suggested MEEB provided at deadline 4
- 81. Natural England suggested that they would also discuss this with JNCC with a view to responding at Deadline 6. However, Natural England highlighted that as there remains uncertainty in relation to the scale of the impacts it would be difficult to fully assess the suitability of any MEEB proped. In addition it should be noted that case would be a precedent for MEEB and currently there is no guidance.
- 82. The applicant stated that it was not necessary to use MEEB unless Natural England found MEEB appropriate. The applicant suggested that in eventuality they would require Natural England's Advice.

### **AGENDA 3d: Marine Conservation Zones**

- 83. The Examiner highlighted that Natural England's deadline 4 response stated that the applicant has not conducted an MCZ assessment to clearly understand the impacts, and asked what the applicant would need to do in order to achieve this.
- 84. Natural England again suggested that this was a matter they would take away and discuss with JNCC with a view to provide further comment at Deadline 6.

#### **AGENDA 3e: Cumulative Effects**

- 85. The Examiner asked if Natural England accept that it phased build has been considered.
- 86. Natural England explained that there are repetitive impacts over the different installation stages and then there is phase build. .
- 87. Natural England questioned whether certain actions would happen multiple times to the same feature (sand bank) delaying recoverability.
- 88. Natural England stated that the impacts may be greater resulting from this. It is not clear from the application that it has been considered.
- 89. The Examiner commented that the Applicant had stated at deadline 1 that this has been considered.
- 90. Natural England: Natural England stated that there were different aspects to the examiners' written question under consideration and that these appeared to have been conflated. Natural England's response to the question therefore sought to clarify this confusion, rather than state a position. As there potential for further confusion, Natural England will take this away and will clarify this for deadline 6.
- 91. The Examiner referred to the GIS data submitted by Natural England at deadline 4. The Examiner could not access the GIS files, and queries whether there had been any additional information to accompany this.
- 92. Natural England explained that their submission within their email submission GIS files there were also two additional documents provided that should provide this information. It was Natural England's intention that these would be added to the PINS website together, however, one of the PDF documents had corrupted resulting in the three document being saved separately with the revised copy of the corrupted file being uploaded as a late submission.
- 93. The Examiner stated that he will look at the document over lunch and advise if the documents need resubmitting.

[This was not raised again after lunch, but NE are happy to resubmit this information if required]

94. The applicant stated that they had looked at the updated reef layers. To resolve some of Natural England's concerns the cables will avoid sensitive

areas in those layers. The applicant mentioned a DCO amendment for identifying areas for temporary work.

95. Natural England stated that it is important to recognise that this reef layer is intended to highlight the areas that JNCC and DEFRA have identified to be managed as reef in response to the feature's unfavourable condition.

## AGENDA 4. MARINE MAMMALS

[AGENDA 4a - No comment from Natural England]

#### 4b: Site Integrity Plan

- 96. Examiner referred to the fact Natural England has highlighted that JNCC piling protocol is outdated, flagged alternative such as the European approach and asked if it was reasonable to expect the Applicant to review alternatives.
- 97. Natural England stated that there was no marine mammal specialist present, therefore would answer as far as possible or respond at deadline 6.
- 98. In relation to the question, Natural England suggested that a range of possible mitigation measures would need to be considered in the draft SIP, highlighting any options that would be unsuitable in the specific context of the project, whilst leaving it open for new mitigation to be considered and added as the technology develops. It is important that the SIP is a robust document, but that it also viewed as a live document. Natural England is waiting for guidance on SIPs from BEIS and the MMO as part of the RoC, and expect that this will set a template for what should and shouldn't be included.
- 99. The applicant clarified the difference between the SIP and the MMMP. [The latter being more prescriptive].
- 100. The Examiner queried if everyone was in agreement with the SoCG.
- 101. The applicant stated that they were in agreement with the MMO and NE, except for some regulatory matters. The MMO will finalise the regulatory process.
- 102. Natural England stated they were largely in agreement with the SoCG. There are a few minor to moderate issues to be resolved, but the main concern is the in-combination impacts. The intention is that these will be dealt with through the SIP process, but Natural England has some outstanding procedural concerns in relation to the mechanism to enable regulators to consider the impact of multiple SIPs occurring over varying timescales.
- 103. The Examiner question whether this issue was outside of the scope of this hearing.
- 104. Natural England stated that as this stood an adverse effect on site integrity in combination could not be ruled out, should a number of noisy activities occur in the site concurrently. Therefore procedural elements need to

be in place to ensure noisy activity does not happen at once. The SIP alone does not provide this certainty.

- 105. The Examiner asked Natural England if it was likely or possible that all noisy activities would occur at once
- 106. Natural England clarified that it would not necessarily need *all* noisy activities to take place at once and that particular combinations of the existing consented activities could take us beyond the SNCB threshold.
- 107. The Examiner asked if Natural England are content with the MMMP conditions.
- 108. Natural England said they did not have specific notes on it from their marine mammal specialist, which suggested they are content, however, this would be made clear in the updated SoCG provided at deadline 6.

## **AGENDA 5 OFFSHORE ONRITHOLOGY**

109. NE highlighted that the views expressed on deadline 4 and 5 submissions are preliminary and will confirm their position. Once they have had the opportunity to fully review the documents.

## AGENDA 5 a. Road map

- 110. The applicant has updated the roadmap in response to Natural England's feedback.
- 111. Natural England stated that they did not have the opportunity to review and comment on the Roadmap prior to its submission at deadline 3.
- 112. Natural England have provided a list of outstanding key information to the applicant which we also submitted in an Annex to REP4-130 (which was originally provided in our written rep). This list represents key information that Natural England would expect to be provided as an audit trail in support of an application, and is important to allow us to provide advice, to enable the competent authority to undertake their assessments in line with our advice, and for future projects to be able to take account of this project in cumulative and in combination assessments.
- 113. Natural England therefore think that it is important that this Roadmap incorporates this list and signposts to where this information can be found within the applicants submissions.
- 114. The applicant stated that they maintain their position of no AEOI. The applicant has now provided an additional analysis which exclude boat based data based on Natural England's advice, and they have also considered Natural England's points on apportioning, flight speeds etc within this additional analysis. Data is displayed in the tables in Appendix 28 (of their deadline 4 submission [REP4-049]. The applicant requested feedback from NE

on this additional analysis and sought clarification regarding Natural England's position regarding AEOI. Should NE reach a conclusion of AEOI, the applicant requested that NE provide an indication of the level of mitigation required.

- 115. Natural England stated that it made its position clear at the last hearing and in written submissions. Natural England cannot rule out an adverse effect on integrity (AEOI) in particular for the Flamborough and Filey Coast SPA and potentially for other designated sites given Natural England's previous comments on the Applicant's LSE screening.
- 116. Natural England went on to highlight that the decision regarding the acceptability of the baseline data ultimately rests with the SoS as advised by the Examining Authority. Therefore in acknowledgement for this, Natural England has sought to be helpful by providing detailed advice on the methods, parameters and analysis to ensure the approach was in line with current SNCB guidance (notwithstanding the baseline concerns).
- 117. Natural England cannot ascertain no AEOI due to lack of information. Natural England cannot advise on the level of mitigation required for an unquantified impact.
- 118. Natural England stated that they have fully engaged throughout the process and will continue to provide advice. Natural England always look to be constructive in their engagement and advice.
- 119. Natural England stated that they will engage in the roadmap process [in order to ensure that information is presented to allow the competent Authority to undertake an analysis in line with SNCB advice]. Natural England can advise on the outputs of the applicant's revised analysis and their implications, however Natural England cannot quantify the collision numbers or displacement effects with any certainty. To do so would be irrational given Natural England's position regarding baseline data. Based on experience, where Natural England has provided advice on estimates using data it considers unsatisfactory it is likely to be quoted as Natural England's position by developers and used in future project applications. Therefore Natural England do not believe it is possible for them to provide any form of quantification on a without prejudice basis.
- 120. Natural England will engage in a roadmap process with the Applicant, to ensure that assessments are undertaken in line with SNCB guidance. Natural England did highlight that an incomplete baseline was a risk during the evidence plan process, and that Natural England may not be able to conclude no AEOI

# Agenda Item 5 B Collision Risk Modelling.

### Agenda Item 5 b i: General issues

121. Natural England: Natural England stated that in the Applicant's document (appendix 28 deadline 4) figures are given on the key species subject to collision risk. Appendix 28 contains an "alternative analysis" which

the Applicant states "presents updated risk assessments using the most precautionary assumptions proposed by Natural England". Natural England does not agree that this "alternative analysis" accurately reflects Natural England's advice on the collision risk modelling. For example, Natural England advised that Option 2 of the Band Model should be used in the collision risk model assessment, however the tables provided also contain figures from Band Model Options 1 and 3 in the "alternative analysis". It is not clear what evidence aligns to Natural England advice within the document. The applicant has presented collision risk modelling figures that follow Natural England advice within the document, but it is not clear to the reader where that information is presented.

- 122. Natural England: Natural England confirmed the applicant has included a column in the Tables in Appendix 28 that is the applicant's position, which for the project alone figures is the RIAA (APP-051),. However, the applicant has submitted a number of additional papers since submission of their ES and RIAA which modify the assessment compared to that outlined in their ES, so their overall position regarding the assessment is no longer clear.
- 123. Natural England stated that whilst some of the information within the tables would be in line with SNCB advice, some for the parameters were not, for example, the tables also include Band Model options that are not in line with SNCB advice, Avoidance rates that are not in line with SNCB advice etc.
- 124. Overall, it is possible for an NE Ornithologist to pick out information that would relate to SNCB advice, but for most people this would be very difficult to find.
- 125. The Examiner highlighted that he has previously asked for the data to be presented as per NE's advice. Therefore the Examiner requested that the Applicants position and Natural England's positon are presented as a side by side analysis.
- 126. The applicant committed to provide this at deadline 6.
- 127. The Examiner requested that Natural England and the applicant come together to discuss how to define the rows and columns of a revised table or set of tables. [N.B. Action completed in the break].
- 128. Natural England stated that it is possible to use the confidence intervals with the collision risk data tables. [Discussed in the break].
- 129. The Examiner queried why NE advice on flight speed appeared to be different to Scottish Natural Heritage (SNH).
- 130. Natural England stated that cannot comment directly on Scottish Natural Heritage (SNH) cases.
- 131. Natural England's understanding is that SNH have not formally advised the use of flight speed data from Skov et al (2018) for use in collision risk modelling, and that in the particular case being referred to, SNH also

considered collision risk predictions that used flight speed data from Pennycuik (1987,1997)/Alerstam et al. (2007) which is the source of flight speed information typically used by OWF developers in Scotland

- 132. Natural England accepts that there are now lots of reports available which include information on flight speeds and that a review is needed of appropriate flight speeds to use for Collision Risk Modelling, but this needs to be based on all of the available information, and not just a single study or set of outputs. There is no evidence that any single published set of figures is more appropriate than the current set,
- 133. The examiner asked a question about migratory species and the array, and whether this had included consideration of all relevant species.
- 134. The applicant advised that this was dealt with at the pre-application stage.
- 135. Natural England advised that they have commented on the suite of migratory species, stating that it does not appear to be a comprehensive list and asking for more information regarding how it was derived. Whilst we acknowledge that the figures for additional species may be very low for this project alone, this information is still needed to calculate the cumulative effects. There will be species that are subject to collision impacts elsewhere and this project could add to the cumulative or in-combination total. Natural England had queried where the applicant had sourced their list, as it is a more restrictive list than has been generated for other projects.
- 136. The applicant confirmed that their list was based on previous projects e.g. Hornsea 2, and that they were satisfied that they had included all species that would be affected.

# AGENDA 5 b ii: Flight Height

- 137. The Examiner asked Natural England to confirm if they agree with the applicant that Johnston et al. 2014 et al. is the accepted paper on flight height.
- 138. Natural England confirmed that they agree that Johnston et al. 2014, the corrected version, is the accepted paper on flight height.
- 139. The Examiner highlighted that Skov et a.l noted flight height of gannets below the rotor height of the array and that kittiwakes and large gulls were noted to fly at rotor height. Flight height higher than previous studies. The Examiner asked why this had not been used by the applicant.
- 140. The Applicant stated that the ORJIP bird collision and avoidance study [Skov et al] was looking at avoidance behaviour of birds. It wasn't trying to obtain flight height distribution for use in collision risk analysis. We don't know how to convert to use for analysis and is a behavioural study rather than quantification.
- 141. Natural England stated that this paper highlights the variability between sites.

- 142. Natural England stated that knowledge on parameters that affect variability in collision predictions has influenced the development of the stochastic model. This includes parameters such as flight height and speed of turbines.
- 143. The Examiner asked Natural England which factor has the greatest influence on a stochastic model.
- 144. Natural England stated that there are differences between the Basic and Extended versions of the Band Model with respect to sensitivity to input parameters:
- 145. The Band Model density of birds, flight speed and flight height have the greatest influence.
- 146. The Extended Band Model flight height, hub height, bird density and turbine rotor speed have the greatest influence.
- 147. The Examiner highlighted that Band suggests that site specific flight height information should be used over generic flight height information. Does NE's position mean you disagree?
- 148. Natural England advises that where there is appropriate site specific information on flight height behaviour this should be used for CRM, however at Hornsea Three the flight height data come from earlier Hornsea Zone boat based surveys and Natural England have previously raised issues with the methodology used to derive flight height statistics from these data. Additionally, Johnston and Cook (2016) suggest it is not appropriate to use the Extended Band Model when combining boat based flight height data and Digital Aerial Surveys (DAS) density data. Natural England advocate using Johnston et al. (2014) generic flight height data with Option 2 of the Basic Band Model for the Hornsea Three CRM.
- 149. The Examiner referred to the LIDAR data provided by the Applicant.
- 150. Natural England stared that they welcome new data and papers that provide evidence to inform collision risk modelling. Using LIDAR is a novel approach to assess height information. It was a pilot trial to test a system. Most were not identified to species level, therefore it is difficult to draw conclusions on flight heights at a species level. Neither the method, nor the data derived by the Applicant has been reviewed in detail in terms of robustness.
- 151. The Applicant stated that their position is it is good data. They clarifies that they were not relying on LIDAR data per se. but that it was presented as further evidence of the applicability of the data they do rely on.
- 152. The Examiner highlighted that the guidance says that generic flight height data should not take precedence over site specific data and questioned whether Natural England's advice was contrary to this.

- 153. Natural England stated the approach is not contrary to guidance. If there is robust site specific information on flight height then this should be used. However, the applicant is using flight height data from previous boat surveys of the Hornsea Zone. Natural England raised a number of issues with the methodology used to collect and analyse these data and made a number of submissions in the Hornsea Two examination. Hornsea 3 data on flight heights it is not as extensive and not contemporary with the bird density data which was collected using a digital aerial platform.
- 154. When it was found that the DAS data could not be used to derive flight height information, Natural England advised that option 2 would need to be used.
- 155. Applicant stated that NE considered the information adequate to use Band option 1 for Hornsea 2.
- 156. [Whilst Natural England did not comment on this point in the hearing, we would urge caution in consideration of the outcomes of other examinations without full sight of the context]
- 157. Natural England confirmed their positon that Band option 2 should be used for collision risk modelling.
- 158. Natural England: Natural England does not believe that the LIDAR methodology has been validated so it would be a leap for the applicant to state that this validates the boat based .There have only been a few studies with LIDAR data. Until recently we had a widely accepted methodology for using DAS to derive flight height which has now been shown to be invalid, so this demonstrates the need to fully evaluate methodologies prior to accepting them.
- 159. The Applicant clarified that they were not seeking to present the LIDAR data in place of the data used in their ES, but for use in support of the data.

# AGENDA 5 b iii Flight Speed

- 160. The Examiner asked Natural England if they accept that Skov et al is more representative than Pennycuick because they measured a considerably larger sample size.
- 161. Natural England stated that they do not accept that Skov et al. is more representative just because it has more data points. This does not necessarily mean a higher number of birds sampled, it is not clear what the sample sizes for the flight speed data are in Skov et al (2018), but it appears that there data were derived from rangefinder track positions that may relate to nodes on the same bird, such that the same birds may have been sampled multiple times.. Natural England also highlighted that there were a large number of variables that had not necessarily been considered in Skov et al (2018) such as weather conditions, time of year etc, Natural England therefore does not consider it appropriate to derive flight speeds solely from Skov et al (2018).

- 162. The examiner questioned if the study NE recommends was representative as NE stated the study has a sample size of 18 birds.
- 163. Natural England stated that there are issues with all data. Natural England accepts that there are now a number of sources of empirical data on flight speeds available and that these show that there is high variability in flight speeds and that it is probably more appropriate to present this information as a range. There is a recognised need for a review of the evidence on flight speeds and also to use the stochastic CRM model, which would allow parameters like flight speed to be inputted as ranges.
- 164. The flight speed information from Pennycuick/Alerstam has been used in previous OWF project collision risk models to date There is certainly a need for a review to derive more robust flight speed parameters, but this should be based on a review of all of the information available, not just a single study.
- 165. Natural England highlighted that Skov et al. (2018) does not represent a correction for species flight speeds. It is a separate data set. The information come from a study that was not designed to measure flight speed information for seabirds. It does not provide clear information about the number of birds sampled, or whether the birds were recorded in the breeding or non-breeding season etc. It is not an SNCB position to recommend the Skov et al. (2018) flight speed data for collision risk modelling.

# AGENDA 5 b iv: Avoidance rates

- 166. The Examiner asked for Natural England's views on Bowgen and Cook as mentioned in Q2.2.19.
- 167. Natural England pointed out that in REP1-088 the applicant said that Skov et al. (2018) Empirical Avoidance Rates could be used in Band (2012) collision risk models. Subsequently in Rep5-008 the applicant said this is incorrect.
- 168. Natural England stated that Bowgen and Cook (2018) is an externally commissioned evidence report by the JNCC. It was commissioned in order to explore whether avoidance rates could be derived from the work presented in Skov et al (2018) that were compatible with collision risk models such as the Band (2012) Model. JNCC and the SNCB's are in the process of reviewing this report and the implications it has for SNCB advice on collision risk modelling.
- 169. The applicant stated that their position is they used the ORJIP study and that they believe that Bowgen and Cook is the best available evidence for avoidance.
- 170. The Examiner asked the Applicant: NE said you used higher avoidance rates in CRM. Is this true and have you also used in the RIAA?
- 171. Applicant stated that the 98.9% avoidance rate was used. The 99.2% value was better than 99.8%. THE ES and RIAA used 99.8 and 99.2 in the CRM.

- 172. Natural England stated that it wasn't clear in the RIAA what avoidance rate was used.
- 173. [Table 7.17 in the RIAA which gives the collision impacts for kittiwake at FFC SPA only lists figures for a 99.2% AR for the Basic Band Model and then 98% for Option 3. So there is no value given for an 98.9% AR which is the SNCB position for use with the Basic Band Model]
- 174. The Examiner highlighted the RSPB query on the 98.9 associated with large gulls. (RSPB were not in attendance at the hearing).
- 175. Natural England stated that there was some debate about which was the most appropriate avoidance rate to use for kittiwake based on the Cook et al (2014) work. Cook et al (2014) were not able to derive a species specific avoidance rate for kittiwake so they suggested using an avoidance rate calculated for "small gulls" (mostly black-headed gull and common gull). Cook et al (2014) also calculated avoidance rates for the grouping "large gulls" and for a combined "all gull" category. The SNCBs reviewed the evidence and given the lack of species specific information available for kittiwake advise that the pooled "all gull" avoidance rate (98.9%) is used for kittiwake.

# AGENDA 5 b v: Nocturnal Activity Factor

- 176. Natural England stated that bird activity was highest during the mornings and evenings. Surveys on bird activity are usually carried out during the middle of the day therefore generally miss the times of higher activity levels for species. As nocturnal activity is calculated relative to day time activity, this bias in the daytime survey data will also affect the calculation of nocturnal activity levels.
- 177. The Examiner cited a number of papers that state different levels of nocturnal activity, stating that there is no consistency.
- 178. The Applicant stated that there is variation in bird behaviour so it stands to reason that there would be variation in different studies. However there is no massive variation in the studies stated level of nocturnal bird activity listed, suggesting that ultimately they are correct.
- 179. Natural England stated that in the applicants environmental statement they made the assumption that gannet nocturnal activity is zero, which is not correct as the evidence shows gannets can be active between sunset and sunrise.
- 180. Applicant stated that Natural England advised NAFs are presented in Appendix 28.

### Agenda c: Cumulative Assessment:

181. ExA Q: Correction factors – headroom issue. Applicant noted that that headroom is not an issue for windfarms which are already constructed.

- 182. Natural England stated that is not sufficient for the Applicant to base their assessments on a 'most likely scenario' and that where they seek to redefine project parameters they should provide evidence that options they are assessing are legally secure and that further changes are no longer possible. The approach to making revised assessments for these projects would also need to be agreed.
- 183. Applicant stated that Appendix 4 (Rep 1.148) at Deadline 1 covers this issue.
- 184. Natural England highlighted that within this appendix, the applicant was making a series of assumptions regarding other projects and revising the parameters in accordance with these assumptions. Natural England advise that confirmation is needed from regulators (MMO and BEIS) that these assumptions were in line with their understanding.
- 185. The Applicant highlighted that there was no means to obtain confirmation from regulators.
- 186. Natural England pointed to the Applicants REP1-148 assumptions and said the MMO would need to agree that the parameters that the applicant were seeking to define for other projects were legally secured for projects in English waters (and MS-LOT for Scottish projects).
- 187. Without proof from the relevant regulator Natural England stated that it cannot make an assessment on changes that they cannot confirm are legally secure. The regulator needs to define the worst case scenario (WCS), or the default is to go with what has been consented.
- 188. [N.B. For clarity, once receiving confirmation of the legally secured project parameters, any subsequent CRM/Displacement analysis would need to be agreed]
- 189. Natural England stated that it is common for a developer to seek a change to their consent, for example to enable them to use a smaller number of larger turbines. These requests to date have been considered to fit within the existing Rochdale envelope so an additional assessment has not been required. It is important to note at this stage, the developer is not taking options off the table, therefore the worst case scenario has not actually changed. It is important not to confuse likely scenarios with the WCS that is legally permitted through the consent.
- 190. Additionally Natural England highlighted that whilst other projects had made small adjustments to the collision figures presented by other projects, the Applicant was seeking to make extensive revisions to multiple projects.
- 191. Natural England highlighted that this discussion exemplified why Natural England does not want to present figures, as advice given on a without prejudice basis seems to be taken as our acceptance. In the case of Hornsea 2 it is important to note that the consent was scaled back significantly during the examination process.

- 192. [For clarity, it should be noted that in past cases, project parameters have been known to change significantly through the course of an examination. Given time constraints, it has not always been possible to address all aspects of the SNCBs advice in the context of those revised proposals. In these kinds of situations, Natural England may have not agreed with the applicant's approach to their assessment, but may have considered that the overall outcome would not be substantially changed by following the SNCBs advice in that particular instance. However, Natural England are now finding that this approach, whilst intended to be helpful, can lead or has led to unforeseen issues both in terms of how those outcomes are interpreted by other applicants, as well as challenges they may present when assessment are updated post consent in relation to condition discharge or licence/consent variation.]
- 193. Natural England: Natural England stated that there needs to be clarity and consistency around how the revised parameters are assessed. If the number of turbines are halved it does not mean that the collision risk is halved as typically a larger turbine is used. This is an over-simplification.
- 194. The applicant argues that if you plan for 100 turbines and build 50 turbines the model will predict half the effect. Projects that are currently operational have not been built to WCS.
- 195. Natural England stated that there are not many cases where there has simply been a reduction in turbine numbers. Often the capacity of the Windfarm remains the same despite the reduction in turbine number, and there are other factors to consider such as the change in rotor swept area.. You cannot simply take collision figure data from the environmental statement and scale it based on numeric reductions in turbine numbers.
- 196. The Examiner requested that Natural England comment on the Applicant's comments on Q2.2.38 of their Deadline 4 Submission at deadline 6.

# AGENDA 5 d Biological Seasons.

- 197. The applicant response to Q2.2.25 lists additional information that the applicant is requesting in relation to Biological Seasons.
- 198. Natural England feel they have responded adequately already to Q2.2.25, but will review this again and comment at Deadline 6.
- 199. Natural England stated that the difference in evidence sources (between NE and the applicant) used to define breeding seasons arise due to a divergence in what constitutes a 'breeding season'. NE advises that a full breeding season (at the colony in question) should be defined, while the applicant seeks to identify a 'core' breeding season that defines months where only adults from the colony will be present at the project site.
- 200. The Examiner highlighted that Applicant's approach to define core breeding seasons and asked for Natural England's view

- 201. Natural England understands the applicant's logic however Natural England does not agree with this approach. Limiting the period to a 'core' breeding season results in the apportioning rates being considerably lower.
- 202. A different apportioning rate may be needed for the 'shoulder' months extending beyond the core breeding season to avoid over-estimating the effects.
- 203. Natural England has not been given information on the 'shoulder' months concept.
- 204. Applicant stated that the 'shoulder' month's concept was not discussed because it was rejected.
- 205. The Examiner commented that the tracking data showed that there was a small number of kittiwakes in array area. 25 individuals in a 9 year period.
- 206. Natural England noted that this was an RSPB submission at deadline 5, and as such had not been fully reviewed by Natural England. Natural England noted that it is a large colony of kittiwakes, with a small number of tracked birds. This means that tracking just demonstrates how far they can forage and that they do use the Hornsea 3 area. There is no indication of the amount of use of the array area.
- 207. The Examiner asked why LSE was not de-minimus.
- 208. Natural England explained that we do not know what proportion of the FFC population use Hornsea 3 area. For large sections of the colony we have no data, such as there is no tagging from considerable sections of the colony
- 209. The Examiner queried whether tracking different parts of the colony would reveal different behaviours.
- 210. Natural England explained there was 3 issues:
  - a. Temporal: Ideally birds would be tracked throughout the breeding season, from pre-egg laying to post fledging.
  - b. Spatial: good spatial representation of the colony is needed, including tagging from the centre of the colony.
  - c. Presence only: Tagging only gives you positional data on presence, it doesn't tell you where birds are absent
- 211. The Applicant argued that this is the best available evidence. This is a long data set and can infer level of importance.
- 212. ExA Q for Applicant: Displacement mortality NE requested this in December 2017.
- 213. Natural England stated that as previously advised, the baseline data that informs the displacement assessment presented in the ES is inadequate.

The applicant has presented an 'alternative baseline' Appendix 28 at Deadline 4, which is based on an incorrect interpretation of our advice. Natural England in their written representation advised that we would place 'greater emphasis' on the upper confidence limits of the population estimate data, whereas the applicant has combined UCL and mean data to present the 'alternative baseline'.

- 214. Annex 4 Rep 4.1.30 specify what we require for the displacement data. (Requested in Annex 2 as part of that representation.)
- 215. ExA: Q2.2.24 definition of biological seasons may influence collision risk. Can you confirm collision risk would increase if seasons defined by Furness or Natural England were used to inform apportioning
- 216. Applicant accepts that change in season would change the collision risk.

## AGENDA 5 e Apportioning rates

- 217. The Examiner asked if Natural England have any comment on the applicant's submission on the Apportioning of immature Auks.
- 218. Natural England noted that the apportioning approach was requested by the RSPB, but can present comments for deadline 6.
- 219. The Examiner asked for Natural England's opinion on the applicant's age class data.
- 220. Natural England highlighted a number of points on this subject:
- 221. Data used to inform age classes. DAS data for Hornsea 3 is the preferable data set. We welcome age class data from DAS.
- 222. In reference to initial apportioning rates used by the applicant, there are issues around puffin and kittiwake. Natural England does not agree with the use of first year survival rates to backward calculate survival rates.
- 223. Ages class data from DAS Rep 4 Annex 2 natural England has a query on apparent discrepancies in the DAS age class data
- 224. The applicant explained that the approach to apportioning used for kittiwake and puffin in the RIAA was accepted by Natural England at Hornsea 2.
- 225. Natural England highlighted that whilst they accepted a reduction in the apportioning value for kittiwake at Hornsea 2. We did not necessarily accept the approach used to reach that conclusion.
- 226. Natural England's preference would be to see age class DAS for razorbill and guillemot.
- 227. Natural England stated that they had previously seen DAS data suggesting auks had been aged but cannot comment further.

- 228. The Examiner referred back to the comments made earlier in the meeting in relation to apportioning and the applicant said that NE discounted the shoulder months for the breeding season.
- 229. Natural England stated that this was mentioned in an evidence working group meeting– However we can't find evidence in the meeting minutes or our notes that this was followed up by the applicant.

### AGENDA 5 f Population viability analysis

- 230. The Examiner asked for NE's view on the revised PVA
- 231. Natural England stated that the applicant submitted an update in REP4-092
- Natural England requested information on the demographic rates used in the models The applicant has done this.
- Natural England had queried why the Applicant had not been able to undertake a matched-runs approach with the density dependent version of the models when other publications have presented matched pairs for density dependent models.
- Natural England were surprised that the number of simulations in the stochastic population viability analysis (PVA) model versions done by the applicant were quite low. Natural England consider that a larger number of simulations would potentially be needed to generate reliable results.
- Natural England had asked the applicant to recalculate the counterfactual metrics using a matched-runs approach. The Applicant had argued that their previous analysis showed no difference between matched and unmatched runs which was unexpected as other work suggests that there should be a difference The applicant has now presented the counterfactual metrics and associated confidence intervals for matched and unmatched runs for the density independent models and these do show differing results. As far as Natural England can tell this analysis is satisfactory for the density independent models.
- 232. The Examiner asked what Natural England's outstanding issues were and if more simulations needed to be done.
- 233. Natural England confirmed that they would like more simulations to be carried out to demonstrate the reliability of the output. The demographic data has not been updated and this needs updating.
- 234. The Applicant stated that it is not essential for them to update the data.
- 235. Natural England confirmed that they did not use the density dependant models for kittiwake and gannet in previous assessments.
- 236. Natural England stated that after the last round of ISH there was an updated Statement of Common Ground (SoCG). The applicant has sent Natural England a draft of the SoCG which will assist in closing down these issues.

- 237. The applicant highlighted that Natural England's view appears to be contradictory. On the one hand asking for more information in line with their advice, and on the other complaining that there is too much information to review.
- 238. Natural England stated that they want to engage to ensure that the competent authority can consider Natural England's advice when undertaking their HRA and that is why we are asking for the additional information. Natural England is now receiving the additional information which has been requested throughout the process [ i.e initially requested in the Evidence Plan process] but in addition to that this is a large amount of new information (that we have not requested) that we are being asked to evaluate.
- 239. The applicant stated that meaningful engagement with Natural England in meetings would be best rather than communicating during hearings.