

Hornsea Project Three Offshore Wind Farm

Statement of Common Ground between Hornsea Project Three and Natural England for Offshore Ornithology

Date: March 2019







| Statement of Common Ground between Ho | nsea Project Three | e and Natural England | d for Offshore |
|---------------------------------------|--------------------|-----------------------|----------------|
| Ornithology | | | |

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Front cover picture: Kite surfer near a UK offshore wind farm © Orsted Hornsea Project Three (UK) Ltd., 2018.





Revision History

| Version | Date | Author | Context |
|---------|--------------|--------|--------------------------------------------------------------------|
| 0.1 | August 2018 | Orsted | Pre-examination: Initial draft for discussion with Natural England |
| 0.2 | January 2019 | Orsted | Re-drafted in line with Natural England feedback and ExA requests. |
| 0.3 | March 2019 | Orsted | Re-drafted in line with Natural England feedback and ExA requests. |
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Signatories

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Acronyms

| Acronym | Description |
|---------|-----------------------------------------|
| DCO | Development Consent Order |
| EIA | Environmental Impact Assessment |
| Ex.A | Examining Authority |
| FFC | Flamborough and Filey Coast |
| LSE | Likely Significant Effect |
| MCZ | Marine Conservation Zone |
| RIAA | Report to Inform Appropriate Assessment |
| SoCG | Statement of Common Ground |
| SPA | Special Protection Area |
| VOR | Valued Ornithological Receptors |





1. Introduction

1.1 Overview

1.1.1.1 This Statement of Common Ground (SoCG) has been prepared by Hornsea Project Three ('the Applicant') and Natural England (together 'the parties') as a means of clearly stating the areas of agreement, and any areas of disagreement, between the two parties in relation to the proposed Development Consent Order (DCO) application for the Hornsea Project Three offshore wind farm ('Hornsea Three'). This SoCG does not deal with or extend to any development other than Hornsea Three.

1.2 Approach to SoCG

- 1.2.1.1 This SoCG has been developed during the pre-application phase of Hornsea Three in relation to offshore ornithological matters only. In accordance with discussions between the Applicant and Natural England, the SoCG is focused on those offshore ornithology issues captured under the headings requested by the Examining Authority in Further Written Question Q2.2.1 (PD-012).
- 1.2.1.2 The structure of this SoCG is as follows:
 - Section 1: Introduction;
 - Section 2: Consultation;
 - Section 3: Agreements Log; and
 - Section 4: Summary.
- 1.2.1.3 It is the intention that this document will help facilitate post application discussions between both parties and also give the Examining Authority (Ex.A) an early sight of the level of common ground between both parties from the outset of the examination process.

1.3 The Development

- 1.3.1.1 Hornsea Three is a proposed offshore wind farm located in the southern North Sea, with a total generating capacity of up to 2,400 MW and will include all associated offshore (including up to 300 turbines) and onshore infrastructure.
- 1.3.1.2 The anticipated operational life of Hornsea Three is 35 years.
- 1.3.1.3 The key components of Hornsea Three include:
 - Turbines and associated foundations:



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- Turbine foundations;
- Array cables;
- Offshore substation(s), and platform(s) and associated foundations;
- Offshore accommodation platform/s and associated foundations;
- Offshore export cable/s;
- Offshore and or Onshore HVAC booster station/s (AC transmission option only);
- · Onshore cables; and
- Onshore HVDC converter/HVAC substation.
- 1.3.1.4 The Hornsea Three array area (i.e. the area in which the turbines are located) is approximately 696 km², and is located approximately 121 km northeast off the Norfolk coast and 160 km east of the Yorkshire coast.
- 1.3.1.5 The Hornsea Three offshore cable corridor extends from the Norfolk coast, offshore in a north-easterly direction to the western and southern boundary of the Hornsea Three array area. The Hornsea Three offshore cable corridor is approximately 163 km in length.
- 1.3.1.6 From the Norfolk coast, underground onshore cables will connect the offshore wind farm to an onshore HVDC converter/HVAC substation, which will in turn, connect to an existing National Grid substation. Hornsea Three will connect to the Norwich Main National Grid substation, located to the south of Norwich. The onshore cable corridor is 55 km in length at its fullest extent.





2. Consultation

2.1 Application Elements Under Natural England's Remit in Relation to Offshore Ornithology

2.1.1.1 Work Nos. 1 to 5 (offshore works) detailed in Part 1 of Schedule 1 of the draft DCO describe the elements of Hornsea Three which may affect offshore ornithological interests.

2.2 Consultation Summary

- 2.2.1.1 This section briefly summarises the consultation that Hornsea Project Three has undertaken with Natural England regarding offshore ornithology. This SoCG focuses on offshore ornithology only and separate SoCGs for Natural England have been produced covering the other technical components of the development consent application of relevance to Natural England.
- 2.2.1.2 Table 2.1 summarises the consultation undertaken between the parties on offshore ornithology during the pre-application phase, and Table 2.2 the post application consultation.

Table 2.1: Pre-Application Consultation with Natural England in Relation to Offshore Ornithology

| Date | Detail | |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 10.03.2016 | Meeting to discuss process and offshore ornithology surveys | |
| 13.04.2016 | Meeting to discuss scope of meta-analysis and survey methodology | |
| 27.07.2016 | Meeting to discuss surveys of Export Cable Route | |
| 21.11.2016 | Meeting to discuss EIA scoping, HRA screening and assessment methodology | |
| 29.03.2017 | Meeting to discuss response to EIA scoping, collision risk modelling, response to HRA screening, baseline characterisation and assessment methodology | |
| 05.06.2017 | Meeting to discuss meta-analysis and baseline characterisation | |
| 23.11.2017 | Meeting to discuss baseline characterisation, assessment methodology | |
| 27.02.2018 | Meeting to discuss Population Viability Modelling, HRA screening, baseline characterisation and assessment approach | |

Table 2.2: Post Application Consultation with Natural England

| Date | Detail |
|-------------|------------------------------------------------------------|
| 21. 01.2019 | Meeting to discuss the Applicant's Deadline 4 submissions. |



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3. Agreements Log

3.1.1.1 The following section of this SoCG identifies the level of agreement between the parties for each relevant component of the application material (as identified in Section 2). In order to easily identify whether a matter is "agreed", "under discussion" or "not agreed" a colour coding system of green, yellow and orange is used in the "final position" column to represent the respective status of discussions.





3.2 Offshore Ornithology

- 3.2.1.1 The Project has the potential to impact upon Offshore Ornithology and these interactions are duly considered within Volume 2, Chapter 5 of the Hornsea Project Three Environmental Statement. Table 3.1 identifies the status of discussions relating to this topic area between the parties.
- 3.2.1.2 Positions included in Table 3.1 that are relevant to the assessments conducted in both the EIA and RIAA are included once as part of the Environmental Impact Assessment section. Where this occurs reference is also provided to the RIAA.
- 3.2.1.3 Subsequent to the submission of the Hornsea Three Application there has been extensive discussion of the assumptions underpinning collision risk modelling and the publication of new evidence to inform those assumptions. This Applicant's position in light of this discussion and new evidence is clarified in Appendix 28 to the Applicant's response to Deadline 6.





Table 3.1: Offshore Ornithology

| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Environmental Impact Assessme | ent | | |
| | Sufficient site-specific data (comprising twenty months of aerial survey data, including two breeding seasons, and data from an extensive, historical boat-based survey programme that covered Hornsea Three conducted between March 2010 and February 2013) has been collated to appropriately characterise the baseline environment. | Natural England does not agree that sufficient site specific data have been collated to appropriately characterise the baseline environment because there exists only one year of digital aerial survey data for the months December to March and these months have not been adequately characterised through the meta-analysis conducted by the Applicant. | Disagree |
| Baseline Characterisation | The aerial survey methodology was agreed as part of the Evidence Plan (paragraph 4.3.2.1 and Appendix D Section D.2 of APP-035). The methodologies and techniques used to analyse aerial survey data are appropriate for providing data to enable baseline characterisation of the Project. This includes the calculation of population estimates and densities and methodologies used to correct for non-detection of diving species (availability bias) and unidentified birds. | Natural England does not agree that the methodologies and techniques used to analyse aerial survey data are appropriate for providing data to enable baseline characterisation of the Project. Natural England accept the methodology used to correct for non-detection of diving species (availability bias) but cannot comment on methodologies used to correct for unidentified birds as we are not aware the applicant has provided any information on this. | Disagree |
| Assessment methodology | The worst case scenarios (Table 5.8, Offshore Ornithology (App-065)) identified for each effect are appropriate based on the information presented in the Project Description. For collision risk modelling the worst case scenario is also presented in Section 1.3.3 of APP-109. | Natural England accepts that the "Maximum Design Scenarios" presented in Table 5.8 of APP-065 and Tables 1.4 and 1.5 of APP-109 (for turbine parameters for collision risk modelling) have been selected by the Applicant as those that have the potential to result in the greatest effect on an identified receptor or receptor group | Agreed |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Cumulative assessment | The lists of projects screened into the cumulative and incombination assessments are appropriate. A three tier system has been applied to allow for consideration of confidence in the impacts associated with the differing potential of projects to proceed to an operational stage and is appropriate. At Deadline 1, the list of projects considered as part of Tier 2 in APP-065 and APP-051 was expanded to included Moray West, Norfolk Vanguard and Thanet Extension as these projects had, subsequent to the submission of the Hornsea Three application, submitted planning applications (see REP1-005) | Natural England do not agree that the list of projects that have been included in the cumulative and in-combination impact assessments are complete. Natural England has commented on the 3 Tier approach in our PEIr response: 'While Natural England does not have serious concerns about the use of a three 'tier' in-combination assessment, we advise that presentation of projects in a higher number of tiers provides better resolution of the different stages different projects are at. This approach also helps differentiate between those projects with high, medium and low confidence in the data and so allows the decision maker to give more weight to those projects for which there is higher confidence in the data. Natural England advises that based on EC guidance 'Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC' and The Planning Inspectorate Advice Note 10, that an approach including a greater breakdown of tiers may be useful. Natural England agrees that the Applicant has expanded their displacement and collision impact assessments to include impacts from Moray West, Norfolk Vanguard and Thanet Extension in REP1-005. Natural England notes that it does not agree with the predicted figures or the methodology used in the in-combination and cumulative assessments for individual species. Further Natural England considers that the assessments for some species are still missing predicted impacts from some projects and/or for some seasons. | Disagree |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| | The cumulative collision and displacement mortality totals have an associated level of uncertainty. An appropriate tiering approach has been implemented to account for the likelihood of projects proceeding to operation. | Natural England does not agree with the cumulative CRM or displacement approach, including the way the project has dealt with uncertainty. | Disagree |
| | It is agreed that failure to adjust for as —built scenarios will lead to an over-estimate of cumulative/in-combination impacts. Consideration has been given by the Applicant to areas of uncertainty arising from the difference in impact arising from projects as they have been built compared to those predicted for the project at application. In addition, consideration has also been given to the uncertainty arising from changes in evidence relating to assumptions such as nocturnal activity. The methodologies applied however, are not agreed | Natural England do not agree with the Applicant's approach to adjusting predicted impacts for consented projects. | Disagree |
| Collision Risk Model | It is agreed that Appendix 29 to the Applicant's deadline 6 response (REP6-043) reflects the assumptions favoured by Natural England in relation to each of these areas of uncertainty as set out in their responses at Deadline 1 – 3. | Appendix 29 to the Applicant's deadline 6 response (REP6-043) provides collision risk estimates using those parameters advocated by Natural England | Agree |
| | In respect of the collision risk modelling included in the Alternative Assessment (Appendix 28 to the Applicant's response at Deadline 4), it is agreed that there is sufficient consideration of the uncertainty associated with input parameters. | The Applicant has presented CRM using the lower and upper CLs of the density data, flight heights, avoidance rates and nocturnal activity factors as requested. Natural England's position is that these ranges should be used to provide information on the influence of uncertainty in these input parameters on predicted impacts, noting that this approach does not allow uncertainty across all parameters to be estimated in a robust way. | Agree |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Band Model | The Applicant has calculated collision rates using all 3 options (and that those calculations are appropriate although we take different positions on the assumptions etc) using Band (2012). It is agreed that this is the appropriate CRM. Ørsted prefer the use of Option 1 (as this better aligns with the flight height data we have for HOW03) or Option 3 with appropriate avoidance rates. | During the Evidence Working Group process for Hornsea Three, Natural England advised that Option 2 of Band (2012) should be used for CRM for all species. Natural England's position is that only the Option 2 outputs are appropriate for the CRM at Hornsea Three. | Disagree |
| | The Applicant has presented (APP-109, REP6-042 and REP6-043) an appropriate range of avoidance rates for each species in collision risk modelling. | The Applicant has presented collision estimates for Band Model Option 2 that include the range requested by Natural England for each species (see APP-109 and REP6-043). | Agree |
| | It is agreed that Bowgen and Cook (2019) now represents the | The SNCB's are currently reviewing the evidence on avoidance rates presented in the recently published Bowgen and Cook (2019) and its applicability to SNCB advice on CRM. This work is ongoing and will not be completed before the end of this examination. | |
| | best available evidence on avoidance rates with collision risk estimates calculated using these avoidance rates presented in | Therefore Natural England's position remains that the appropriate avoidance rates to use with Band (2012) model are those set out in the SNCB guidance note JNCC et al (2014) as provided in advice to Hornsea Three through the EWG, Scoping and S42 stages of the Application as well as to other projects currently in the planning system. | Disagree |
| Density estimates derived from digital aerial surveys | Collision risk estimates have been calculated utilising mean density data and associated upper and lower confidence intervals from digital aerial surveys (see REP6-042 and REP6-043). These densities form a reasonable assumption for the | For months where there is a single survey from just one year (Dec, Jan, Feb, March) Natural England does not agree that it is possible to conclude that the upper confidence interval of that density estimate | Disagree |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
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| | purposes of CRM taking into account the likely variability in the abundance of these species at Hornsea Three. | takes into account the likely variability in abundance of the species at Hornsea Three. | |
| Nocturnal Activity Factors | The empirically derived nocturnal activity factors for gannet and kittiwake are appropriate. There is insufficient evidence to support a change in the nocturnal activity factors applied for lesser black-backed gull or great black-backed gull. In addition, it is considered appropriate to consider these over-estimations in a qualitative fashion as part of relevant cumulative and incombination assessments. | Natural England does not agree with the "empirically derived nocturnal activity factors" for kittiwake and gannet that the Applicant has used. For lesser black-backed gull and great black-backed gull the Applicant has used a nocturnal activity factor of 3 in the CRM which aligns with previous collision risk modelling undertaken by Hornsea Zone and other recent OWF projects, but has qualitatively considered this to be an over-estimate of nocturnal activity. In acknowledgement of the uncertainty around nocturnal activity patterns for various species, Natural England has accepted use of a range of nocturnal activity rates in CRM for key species, and in the case of lesser black-backed gull and great black-backed gull a range of 2-3 for the nocturnal activity factor. Using these figures to generate collision risk estimates allows the effect of changing assumptions about nocturnal activity to be quantified, rather than having to rely on a qualitative assessment of the degree to which over or underestimating nocturnal activity might have on the predicted impact level and its significance under EIA. Given the uncertainty as well as variability in the data on activity levels (both during the daytime and during night), Natural England advises that collision risk outputs covering a range of nocturnal activity factors are considered to account for the uncertainty/variability (in the same way as has been recommended for bird densities, avoidance rates and flight heights). The suggested range of nocturnal flight activities to be considered within the Band model CRM are: Gannet: 1-2 (equating to 0-25% nocturnal activity) | Disagree |





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| | | ☐ Kittiwake: 2-3 (equating to 25-50% nocturnal activity) ☐ Large gulls: 2-3 (equating to 25-50% nocturnal activity) | |
| Flight Height Estimation | Flight height data obtained during project-specific aerial surveys is inadequate to inform collision risk modelling. The existing Hornsea zonal boat based data considered alongside the generic data from Johnston <i>et al.</i> , 2013 is an appropriate method to establish flight height distributions for key species. The Applicant considers that this approach is appropriate as it is consistent with the approach applied as part of consent applications for other projects in the Hornsea Zone by both the relevant Applicant and Natural England | Natural England accepts that flight height data obtained from the project specific aerial surveys in 2016-2017 are inadequate to inform collision risk modelling. Natural England does not agree that the existing Hornsea Zonal boat based data and associated methodologies for assigning data to flight height bands appropriate to establish flight height distributions for key species for use in collision risk modelling for Hornsea Three. Natural England's position is that the generic flight height data in Johnston et al (2014-corrected) should be used in conjunction with Option 2 of the Band (2012) model. | Disagree |
| Flight Speed Estimation | The empirically derived flight speeds presented in Skov et al. (2018) represent the best available evidence on flight speeds for collision risk modelling. There is no guidance in relation to the selection of flight speeds for CRM and therefore practitioners have historically used the best available evidence. Prior to the availability of tracking or rangefinder data, the default was Alerstam <i>et al.</i> (2007) and Pennycuick (1987), although these sources have significant limitations (see REP1-188 and REP4-049). Collision risk modellers are now making use of improved data on flight speeds (e.g. Masden, 2015). The use of flight speed data from Skov <i>et</i> | Natural England do not agree that the empirically derived flight speeds presented in Skov et al. (2018) represent the best available evidence on flight speeds for collision risk modelling. Natural England considers that the data on flight speeds in Skov et al (2018) represent a source of information on flight speeds from a single site that needs to be reviewed alongside a range of other empirical sources of evidence of bird flight speeds. In the absence of such a review of all available data on flight speeds, [N.B. It is of note that the intention of the Skov et al (2018) study was not to generate flight speed estimates, and therefore the data collection methodology was not specifically designed to achieve this. Consequently, there are a number of variables that may not have been adequately captured or considered in the analysis]. | Disagree |





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| | al. (2018) has also been accepted by SNH and Marine Scotland for offshore wind farm projects in Scotland. | The flight speeds that Natural England advises should be used in the collision risk modelling are those presented in Alerstam <i>et al.</i> (2007) and Pennycuick (1987) for relevant species as set out in Table 1.3 in the Applicant's Environmental Statement: Volume 5, Annex 5.3 - Collision Risk Modelling [APP-109] Natural England recognises that there will be variability around these figures. Collision risk figures calculated using a range of parameter values can provide contextual information that is useful for assessing the level of uncertainty and variability in the predictions. | |
| Biological Seasons | The biological seasons defined by the Applicant reflect the evidence relating to the likely presence of key species at the Hornsea Three site and are consistent with those agreed and applied by the relevant Applicant and Natural England as part of the assessments conducted for the consent application for the Hornsea Project Two offshore wind farm. | Natural England do not agree with the seasonal definitions used in the assessments for puffin, gannet and kittiwake. (See Natural England's Written Representation, Annex C, Section 7, for further information) | Disagree |
| | It is appropriate to consider the presence of key species at the Hornsea Three site as that is where any impact arising from the operation of the wind farm will arise. On this basis the assumptions relating to seasonality are informed by the patterns of movements of birds in offshore locations. | Natural England advise that in terms of defining the length of the breeding season at a colony, using observations from the colony in question is more defensible and provides greater certainty that attempting to interpret at-sea data. | Disagree |
| Migratory Species | The approach to migratory bird analysis (both for seabird and migratory waterfowl) is consistent with that produced for previous projects). The suite of species for both migratory seabirds and migratory waterfowl has previously been accepted by Natural England (see Appendix B and Appendix C of Volume 5, Annex | Natural England has commented on the Applicant's approach to migratory bird collision risk e.g. in our REP1-211. Whilst Natural England does not agree with all aspects of the Applicant's methodology or approach, we do not believe that the methodology and approach adopted has resulted in fundamentally different conclusions | Disagree |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
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| | 5.3: Collision Risk Modelling (APP-109)) The Applicant has considered the collision risk on migratory seabirds in relation to relevant SPAs in RIAA Annex 2 – Additional Special Protection Areas Screening Exercise (APP-053). As less than one collision was predicted for all four of the migratory species incorporated into the migratory collision risk exercise it was considered that there would be no LSE on these species as features at relevant SPAs. It is agreed that there is no indication of an LSE on these species and that there are no further species to consider in this assessment. | to the assessment in the specific cases assessed. However, there remains a lack of clarity regarding: the criteria on which migratory waterbird species were selected for this analysis; the suite of SPAs with which those species may be associated; those species/SPAs close to the Hornsea Zone but not considered in this analysis, and the magnitude of potential cumulative and in-combination impacts for migratory species. While we do not consider it very likely that this additional information will identify further species/sites for which a significant effect might arise from collision mortality during migration for Hornsea Three alone or in combination with other plans or projects, it is not possible to confirm whether these assumptions are correct, | |
| | All species at risk of disturbance and displacement impacts have been identified. | Natural England agrees, that based on current evidence, the species at risk of displacement have been identified. | Agree |
| | The EIA and RIAA assessments regarding displacement impacts are conducted following recommended guidance. | Natural England does not agree that displacement impacts have been assessed following recommended guidance. In particular the applicant has not followed the below recommendations from SNCB guidance (MIG 2017): | |
| Predicted Displacement Mortality | | At least 2 full years of monthly survey data | Disparco |
| | | Mean seasonal peak population estimates based on several years of data (minimum 2 years) | Disagree |
| | | Seasonal impacts should be summed across seasons | |
| | | Displacement and/or mortality levels should not be varied across seasons | |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| | | Displacement and collision impacts should be added together | |
| | The displacement and mortality assumptions are appropriate for informing the assessment of displacement effects on ornithological receptors with information provided to allow readers to conduct their own assessment, if deemed necessary. | Noting that Natural England does not agree with the underpinning baseline survey data as well as with a number of methodological aspects of the displacement assessment (e.g. seasons used to calculate mean peak abundances), Natural England does not agree that the displacement and mortality assumptions used by the project are appropriate for informing the assessment of displacement effects on ornithological receptors. Natural England also does not agree that the Applicant has provided sufficient information to allow readers to conduct their own assessment. | Disagree |
| | Summing seasonal displacement effects has a notable potential for double-counting any displacement impact. It is therefore not considered appropriate to sum seasonal displacement impacts in the EIA and RIAA. | Natural England does not agree with this statement. SNCB advice is to sum displacement impacts across seasons. SNCBs acknowledge that the same bird may be assessed twice, however since a large proportion of birds in the non-breeding season are predicted to be different individuals from those present in the breeding season (hence considerably different apportioning rates to a colony) the potential for double counting is limited. Not summing displacement effects may result in displacement effects being under-estimated | Disagree |





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| | It is appropriate that the displacement analyses for red-throated diver and common scoter use data sourced from Lawson <i>et al.</i> (2016). These data supported the designation of the Greater Wash SPA, at which both species are qualifying features, and is considered to represent the best available evidence to support the assessments presented in the EIA and the RIAA. | On the basis that Natural England understand that the densities of birds used to inform the displacement assessment have been derived from the under-lying density estimate data for the ECR for all 1x1km squares that cover the ECR and 2km buffer from the individual surveys, rather than extracted from the overall mean density surface modelled data presented in Lawson et al 2016 as shown in Figure 7.4 of the RIAA, then Natural England consider this to be the best available evidence. | Agree |
| Population Viability Assessment | The updated PVA model results submitted at Deadline 1 (REP1-135) reflects the advice received from Natural England during the Evidence Plan process and is an appropriate basis on which to determine the likely consequences of additional mortality on key species that are features of the FFC SPA. | Natural England do not agree that REP1-135 is an accurate reflection of advice from Natural England. Natural England note that the Applicant has made a further submission on PVA at Deadline 4 (Appendix 73) REP4-092 following Natural England's submission at Deadline 3. | Disagree |
| Impact Apportioning | The methods used to calculate apportioning rates follows the approaches applied and accepted at previous offshore wind farm projects in the former Hornsea Zone and is based upon available scientific evidence. | Natural England have a number of concerns regarding the approach Hornsea Three have taken to apportioning presented within the application (see our written representation REP1-211), and do not agree with the apportioning of breeding adults presented for gannet, kittiwake and puffin within the original application. However, we note that a range of apportioning rates (using both digital and boat based data sets) have been subsequently presented at Deadline 4 in Appendix 28,and welcome this. Furthermore we have concerns regarding the lack of apportioning of immature/non-breeding guillemot and razorbill in the breeding season to FFC pSPA, again we note that an apportioning approach has been presented for immature auks at Deadline 5 (REP5-014). | Disagree |





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| Likely Significant Effects in Combination Screening | The list of sites identified for inclusion in the RIAA (i.e. those for which a Likely Significant Effect (LSE_ was identified) is comprehensive. Potential LSEs are predicted for impacts associated with displacement/disturbance and collision only in relation to features designated at: • FFC SPA – Fulmar, gannet, kittiwake, guillemot, razorbill and puffin • Farne Islands – fulmar • Coquet Island – fulmar • Forth Islands – fulmar • Greater Wash SPA – red-throated diver, common scoter and Sandwich tern | Do not agree. In our view the list of sites is incomplete. (See comment below) | Disagree |
| | The approach to screening of other features at these sites has been clarified by the Applicant at Deadline 4 (REP4-082). It is agreed that there is no indication of an LSE on these features and there are no further sites of features that require consideration in the RIAA. | Natural England do not agree with this statement. Natural England consider that there are three areas where LSE screening has not be applied appropriately that need to be addressed: Species and SPAs have been screened out on the basis of no LSE alone without consideration of impacts incombination with other plans and projects; Species and SPAs have been screened out on the basis of no LSE that has only been assessed for part of the annual cycle (e.g. ignoring impacts on a feature of an SPA that occur in the non-breeding season); | Disagree |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
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| | | Species and SPAs have been screened out as no LSE based on assumptions around the fine scale distribution of features WITHIN SPA boundaries. Natural England considers that assessment at this level of detail should be undertaken within an Appropriate Assessment. | |
| RIAA conclusions | The construction, operation and decommissioning of Hornsea Three will not result in an adverse effect on the fulmar, gannet, kittiwake, guillemot, razorbill or puffin features of the FFC SPA as a result of impacts from the project alone or in-combination with other plans or projects. | As a result of the fundamental issues associated with the baseline data and the Applicant's assessment methodology, Natural England is unable to form any conclusions about adverse effects on site integrity for features of the FFC SPA. | Disagree |
| | The construction, operation and decommissioning of Hornsea Three will not result in an adverse effect on the red-throated diver, common scoter or Sandwich tern features of Greater Wash SPA as a result of impacts from the project alone or incombination with other plans or projects. | Natural England disagree with elements of the Applicant's Assessment methodology, but agree overall with these conclusions. | Agree |
| | The construction, operation and decommissioning of Hornsea Three will not result in an adverse effect on the fulmar feature of the Farne Islands SPA, Coquet Island SPA or Forth Islands SPA as a result of impacts from the project alone or in-combination with other plans or projects. | As a result of the fundamental issues associated with the baseline data and assessment methodology, Natural England is unable to form any conclusions about adverse effects on site integrity for these SPAs and associated features. | Disagree |
| Draft Development Consent O | Order | | |
| Commitments / Restrictions | Given the embedded measures and ES conclusions no further specific commitments and or restrictions are required in the DCO for ornithology. | Natural England cannot currently comment on the DCO requirements due to a number of substantial disagreements with the overall assessment. | Disagree |





| Discussion Point | Hornsea Project Three Position | Natural England's Position | Final Position |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Monitoring | A commitment is made within the DCO to ornithological monitoring, with the need for and nature of any ornithological monitoring to be as agreed through the Ornithological Monitoring plan, that will be developed in line within the In-principle monitoring plan and agreed with the MMO post consent. | Natural England cannot currently comment on the DCO requirements due to a number of substantial disagreements with the overall assessment. | Disagree |





4. Summary

- 4.1.1.1 This SoCG has been developed with Natural England to capture those matters agreed and not agreed regarding offshore ornithology.
- 4.1.1.2 Given the scope of disagreements both parties refer to their relative submissions made on the subject during the examination period for Hornsea Three.

