

Date: 28 February 2020  
Our ref: Norfolk Vanguard



Department for Business, Energy & Industrial Strategy  
1 Victoria Street  
London  
SW1H 0ET

Sterling House  
Dix's Field  
Exeter  
EX1 1QA

BY EMAIL ONLY

Dear sir/madam,

**RE: Summary of Natural England's advice to Norfolk Vanguard re. Secretary of State's Request for Information (6<sup>th</sup> December 2019)**

In the Secretary of State's (SoS) Request for Information letter to Norfolk Vanguard on 6<sup>th</sup> December 2019, Vattenfall were asked to engage with Natural England in order to develop measures to mitigate impacts and examine potential compensation measures for several designated sites and their features.

Consequently, Natural England have engaged with the Project over the past three months through meetings, a one-day workshop and catch up calls, as detailed in Table 1, and so to help BEIS understand the level of engagement we have had are providing this letter.

Table 1: Details of meetings, workshops and catch-up calls between Norfolk Vanguard and Natural England.

Date	Meeting Type and Topic
8 <sup>th</sup> Jan 2020	Initial Teleconference to discuss the Scope of Work
16 <sup>th</sup> Jan 2020	Catch-up call
23 <sup>rd</sup> Jan 2020	Workshop with MMO and Project Team to discuss mitigation proposals and examine Compensation options
31 <sup>st</sup> Jan 2020	Catch-up call
5 <sup>th</sup> Feb 2020	Follow-up call following the workshop with MMO and Project Team
17 <sup>th</sup> Feb 2020	Catch-up call with MMO and Project Team
24 <sup>th</sup> Feb 2020	Catch-up call with MMO and Project Team

During this time, Norfolk Vanguard provided a range of updated impact assessments, potential mitigation measures and compensation measures. For transparency, we attach our written advice, as detailed in Table 2, which summarise and reflect the development of our advice during the calls and meetings listed above. These are attached in Annex 1-7.

Table 2: Details of written advice Natural England have provided to Norfolk Vanguard during the engagement period.

	Response Topic	Date Sent	Pages
Annex 1	Natural England letter to Norfolk Vanguard regarding the Secretary of State (SoS) request for further information 'in consultation with Natural England' on matters pertaining to the Habitats Regulations derogations.	19 <sup>th</sup> Dec 2019	3
Annex 2	Comments on Terms of Engagement Letter and In-Principle Compensation Measures Documents.	4 <sup>th</sup> Feb 2020	7
Annex 3	Comments on Assessment of Additional Mitigation in the Haisborough, Hammond and Winterton (HHW) Special Area of Conservation (SAC) Document (Ref: NE;11.D10.C)	4 <sup>th</sup> Feb 2020	3
Annex 4	Comments on Potential ornithological compensation measures for kittiwake at Flamborough and Filey Coast SPA and lesser black-backed gull at Alde-Ore Estuary version 2 (Ref: NE;11.D10.C)	25 <sup>th</sup> Feb 2020	6
Annex 5	Comments on Norfolk Vanguard Headroom in Offshore Ornithological Impacts. (NE;12.D10.B)	25 <sup>th</sup> Feb 2020	4
Annex 6	Comments on Explanation of Proposed Draught Height Mitigation (AC_160109477_1)	25 <sup>th</sup> Feb 2020	6
Annex 7	Comments on Norfolk Vanguard Haisborough Hammond and Winterton (HHW) SAC draft Deemed Marine Licence Conditions to Secure Mitigation and Approach to Securing Compensation for European Sites Documents	28 <sup>th</sup> Feb 2020	3

Natural England notes that Norfolk Vanguard also provided a document regarding marine mammals and water quality. However, Natural England's previous advice provided on 19<sup>th</sup> December 2019 to Norfolk Vanguard, in this regard still stands (see Annex 1). Natural England also notes that in your letter dated 6<sup>th</sup> December 2019 a request was made to further discuss the 95% sediment disposal condition. Natural England continues to work with both Ørsted and Vattenfall to address this for the three offshore windfarm projects (Norfolk Vanguard, Norfolk Boreas and Hornsea Project Three) which this is most relevant too.

Please note, Natural England intends to review the suite of documents submitted by Norfolk Vanguard to the SoS on 28<sup>th</sup> February 2020 and is likely to provide further comment on these where necessary.

If you have any questions relating to this letter please contact me using the details below.

Yours sincerely,



Jessica Taylor  
E-mail: [Jessica.Taylor@naturalengland.org.uk](mailto:Jessica.Taylor@naturalengland.org.uk)  
Telephone: 0208 225 8234

# Annex 1

Date: 19 December 2019  
Our ref: Norfolk Vanguard



Natural England,  
Lateral, 8  
City Walk  
Leeds  
LS11 9AT

BY EMAIL ONLY

Dear Rebecca,

Natural England notes that on the 6<sup>th</sup> December 2019 the Secretary of State (SoS) wrote to Vattenfall to request further information 'in consultation with Natural England' on matters pertaining to the Habitats Regulations derogations.

In order to be as helpful as possible to Vattenfall in this regard, we are taking the opportunity to write to you to set out where and how we may be able to assist you in responding to these requests.

During the examination Natural England's advice was that it was not possible to conclude no adverse effect on site integrity for a number of European sites beyond reasonable scientific doubt (including Flamborough and Filey Coast Special Protection Area (SPA); The Alde-Ore Estuary SPA, Haisborough Hammond and Winterton Special Area of Conservation (SAC) and The Southern North Sea SAC).

As a result of advice provided on Hornsea Project Three, within the Examination, the Examining Authority asked Natural England to provide advice on compensatory measures ([REP4-130](#) Q2.2.8, Q2.2.45); which you may find helpful as it is also relevant to Norfolk Vanguard and remains unchanged.

Our current advice on the areas outlined in the SoS letter are as follows:

### **1. European Designated Sites (SPAs and SACs)**

Natural England notes that the SoS makes reference to Haisborough, Hammond and Winterton SAC and the use of the Site Integrity Plan (SIP). Please note that our advice hasn't changed since examination. Further information is provided in our response to [ExA question Q2.0.6](#) provided for Norfolk Boreas OWF Deadline 2.

Natural England notes that the SoS makes particular reference to the kittiwake feature of the Flamborough and Filey Coast SPA our advice provided during examination remains unchanged. Other than the seabird assemblage (due to impacts on kittiwake) further concerns in relation to gannet/guillemot/razorbill only relate to in-combination effects once Hornsea 3 totals are included. We specifically advised that an in-combination AEOI *could* be ruled out for these species when Hornsea 3 was excluded.

Natural England notes that the SoS makes particular reference to the Lesser Black Backed Gull feature of the Alde-Ore Estuary SPA. During the examination we advised that there was no AEOI alone (5 deaths per annum), but an AEOI couldn't be ruled out in combination (39 deaths per annum). Whilst the collision numbers are smaller than for kittiwake, the Alde Ore Estuary SPA is a much smaller colony and has shown long-term decline and has a restore conservation objective.

It is recognised that the In-combination total is lower than that consented at Galloper, but impact assessment methodologies have been modified since then. And further mitigation may help to further reduce the impacts.

In relation to the questions in the SoS letter pertaining to additional information on the matters set out in regulations 64 and 68 of the Conservation of Habitats and Species Regulations 2017, and regulations 29 and 36 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 the following is noted:

- Natural England cannot propose alternatives, but can advise on the environmental impact of any alternatives Vattenfall may propose.
- Natural England does not intend to comment on the IROPI case.

As set out in its Hornsea Project 3 Deadline 4 response, the role of Natural England is to provide advice to the competent authority on the effectiveness of any compensatory measures that are proposed and whether they will be sufficient to ensure that the overall coherence of the Natura 2000 network is protected. It should be noted that provision of compensation in the offshore environment has very little precedent so options will need careful consideration in order to ascertain if they might be suitable. We will however, be happy to consider and comment on any options that Vattenfall may wish to propose and may also be able to assist in signposting to relevant guidance on mitigation and/or compensatory measures.

- Because the Norfolk Vanguard OWF shares a cable corridor with its sister project Norfolk Boreas and we have raised similar issues and concerns with that project currently in examination, we strongly advise that it would be beneficial to consider all proposed options for compensation for each project alone and in-combination.

## **2. Proposed DML conditions**

- Particle Size Condition: Subsection (g) within condition 3(1) of schedules 11 and 12 of the DCO (deadline 9) NE supports the inclusion of such a condition to ensure disposal at the most environmentally appropriate location, but in discussion with others we note that the wording

is ambiguous and has practical implications of discharging the condition. Therefore, we anticipate there will need to be further discussion on this with the MMO and we are aware that other developers are also considering this issue too.

- Marine Mammals:
  - Condition 14(1)(f) of schedules 9 and 10 and condition 9(1)(f) of Schedules 11 and 12 Natural England believes that vibro-piling and 'blue hammer' technologies were already captured by the condition, therefore defers to the Applicant and MMO on this matter.
  - Again similar with Condition 14(1)(m) of Schedules 9 and 10, and condition 9(1)(l) of Schedules 11 and 12

### **3. Marine Mammals**

Natural England is content to review and provide advice on any further assessment undertaken by Vattenfall on vibro-piling and 'blue hammer' technologies to address the SoS comment as well as any assessment on the in-combination impacts of changes in water quality on the interest features of the Southern North Sea SAC.

### **4. Terrestrial Matters Points 11 - 29**

As issues relating to these matters were raised by other interested parties Natural England doesn't anticipate any further engagement on these matters. However, if requested Natural England would be content to provide advice to the Applicant or the LPAs on potential impacts on nature conservation from amended proposals relating to these matters.

### **5. Offshore matter Points 30 – 33**

These issues are outside of Natural England's remit and therefore we do not anticipate any further engagement on these matters.

### **6. Natural England input**

Natural England is content to provide advice to Vattenfall in responding to the Secretary of State's request, but note that our availability within the timescales identified is limited. We are therefore keen to understand the nature of any consultations and establish realistic timescales for review and response. Therefore, we would welcome an initial discussion to set out clear parameters for our engagement going forwards under our Discretionary Advice Service.

### **7. Agreed Meetings**

8<sup>th</sup> January 2020 – to discuss action plan and NE engagement  
16<sup>th</sup> January 2020 – catch up meeting  
23<sup>rd</sup> January 2020 - workshop

If you have any questions relating to this letter please contact me using the details below.

Yours sincerely,

Louise Burton  
Marine Senior Adviser  
Southern North Sea  
E-mail: [louise.burton@naturalengland.org.uk](mailto:louise.burton@naturalengland.org.uk)  
Telephone: [REDACTED]



# Annex 2

Date: 04 February 2020  
Our ref: Norfolk Vanguard



Sterling House  
Dix's Field  
Exeter  
EX1 1QA

BY EMAIL ONLY

Dear Rebecca,

**RE: Natural England's comments on Terms of Engagement Letter and In-Principle Compensation Measures Documents.**

1. **Terms of Engagement Letter**

a) **General Comments**

Natural England welcomes the provision of the Terms of Engagement letter and are happy to consider and comment on any options that Norfolk Vanguard may wish to propose and may also be able to assist in signposting to relevant guidance on mitigation and/or compensatory measures.

Natural England supports the approach taken by Norfolk Vanguard to follow a step wise process. However, we would advise that the derogation case is taken forward in parallel to discussions around proposed mitigation measures to ensure that enough time is given to talk this through.

Natural England is also pleased to see in section 3.2.6 (d) of the letter that Norfolk Vanguard '*is committed to developing compatible mitigation solutions for Norfolk Vanguard and Norfolk Boreas.*' However, as per the Written Representations for the Boreas Offshore windfarm (OWF) examination Natural England continues to advise against the use of a Site Integrity Plan (SIP) and Grampian condition to defer making decisions where we are currently advising there is limited certainty in the mitigation measures and an adverse effect on site integrity (AEoI) cannot be ruled out beyond scientific doubt. Whilst we recognise that Norfolk Vanguard are making all efforts to address matters raised in the Secretary of States (SoS) letter dated 06 December 2019, Natural England continues to have wider concerns in relation to the feasibility of micro siting; something that we would raise as part of our response to the SoS. Therefore, we advise that it may be prudent to also consider this matter further to aid the SoS in determining your project.

As discussed at the workshop on 23 January 2020 Natural England are not able discuss those measures currently being proposed by other projects with Norfolk Vanguard.

## b) Ornithology

### i. Mitigation discussed during the examination

Natural England recognises the commitments provided by Norfolk Vanguard during the examination to attempt to mitigate for the impacts of the project. However, our position at the end of the Norfolk Vanguard OWF examination was that it was not possible to rule out adverse effect on integrity and this position remains.

### ii. Further possible mitigation measures being considered post-Examination: The removal of 10MW and 11MW turbines (smallest turbines now being considered 11.55MW).

Natural England have reviewed the revised Collision Risk Modelling (CRM) document provided by the Norfolk Vanguard on 10 January 2020 and agree that the numbers in the document look correct. However, the numbers generated by the removal of the 10MW and 11MW turbines are still high at 30 kittiwakes and 4 lesser black-backed gulls (LBBG). Therefore this would not alter our conclusion that it is not possible to rule out adverse effect on site integrity. In addition, it would not be possible to state that the Vanguard contribution to the in-combination totals is of a level that is 'insignificant or not material'.

With this in mind, Natural England continue to advise that further mitigation measures are considered. These could include:

- Raising the draught height by more than 5m – NE would suggest presenting a range of heights and CRM predictions and any justifications for why other heights may not be viable (if that is the case);
- Exploring other layout scenarios of turbine spreads between Vanguard East and Vanguard West (if possible);
- Work out how many fewer turbines would result in CRM predictions of <1 kittiwakes from Flamborough and Filey Coast SPA and LBBGs from Alde-Ore Estuary SPA;
- Investigate whether it would be possible to adopt a licence condition which would mean that a certain number of turbines were switched off for certain key weeks to achieve this low level of predicted collisions until such time as evidence accrues regarding actual collision numbers. At this time the condition could be reviewed or possibly deemed discharged due to there being no need to continue; and
- Investigate securing reductions to the Rochdale envelopes of other developments (such as other Vattenfall owned OWFs) to create headroom equivalent to their own contribution (as EA3 did in relation to EA1).

### iii. Further possible mitigation measures being considered post-Examination: The legal position on consented versus built: those built wind farms which would require further consents to build out to what was originally consented and the effect on in-combination numbers for kittiwake/LBBG.

Natural England awaits Norfolk Vanguard's position on this and will provide further advice once this has been provided.

c) **Haisborough, Hammond and Winterton Special Area of Conservation (SAC)**

i. **Step 1 - Mitigation discussed during the Examination: General Comments**

Natural England recognises the commitments provided by Norfolk Vanguard during the examination to attempt to mitigate for the impacts of the project. However, our position at the end of the Norfolk Vanguard OWF examination was that it was not possible to rule out adverse effect on integrity and this position remains. Although we do recognise that the proposed mitigation measures have significantly reduced the likelihood of impacts to Annex I *Sabellaria spinulosa* reef, lasting impacts to Annex I Sandbanks remain. Further detailed comments will be provided following our review of the revised assessment provided on 27 January 2020.

ii. **Step 1 - Mitigation discussed during the Examination. Point a (v)**

Natural England notes that one of the mitigation measures proposed by Norfolk Vanguard was to review the feasibility of removing cable protection at the point of decommissioning. Natural England advises that this cannot currently be considered as mitigation as it is simply a review of the feasibility of removing cable protection at the point of decommissioning. This could only be considered mitigation at the stage that Norfolk Vanguard could demonstrate that it would actually be possible to remove any cable protection.

Natural England notes from discussions at the workshop on 23 January 2020 that Norfolk Vanguard intends to provide an assessment detailing how removal of cable protection could be achieved without damaging the interest features for which the site was designated. Natural England would be supportive of this if it could be done. However, please note, it is the view of Natural England that as any cable protection will be in place for 30 years this should be considered a lasting not temporary impact.

Natural England are happy to provide comment on this proposal when available.

iii. **Step 2 - Further possible mitigation measures being considered post-Examination: (a) A commitment to no cable protection in the top priority areas to be managed as reef.**

Natural England supports the position of not placing cable protection in areas of higher confidence Annex I reef. However, there may be other areas of reef that may establish along the cable corridor. These will need to be avoided at the time of cable installation so the placement of rock should be avoided in those areas which have the potential for Annex 1 reef to form.

There are still going to be lasting impacts to Annex I Sandbanks, even with the reduction in cable protection to 5% of the cables within the SAC. Whilst it is recognised that cable protection in these areas will likely go through phases of exposure and burial there is no certainty of the longevity of these phases so the precautionary approach (i.e. that the cable protection will remain exposed all of the time) should be adopted until further evidence is presented. We therefore advise that there remains lasting impacts to Annex I Sandbanks, even if it can be demonstrated that cable protection can be removed at the time of decommissioning.

iv. **Step 2 - Further possible mitigation measures being considered post-Examination:**

**(b) In the top priority areas to be managed as reef, a commitment to seek consent to cut and remove disused cables in the first instance, before employing cable protection (subject to cable owner's consent).**

Natural England supports this position to reduce the cable protection required at cable crossings. However, we would advise that this could only be considered mitigation at the point that it can be shown that this is possible.

Natural England notes from discussions at the workshop on 23 January 2020 that Norfolk Vanguard intends to provide an assessment detailing how removal of cable protection could be achieved without damaging the interest features for which the site was designated. Natural England would be supportive of this if it could be done, however, please note, it is the view of Natural England that as any cable protection will be in place for 30 years this should be considered a lasting not temporary impact.

Natural England are happy to provide further comment on this when the document is available.

**v. Feasibility of covering cable protection with sediment**

Natural England do not consider this as appropriate mitigation as this would still result in a change to the form and structure of Annex 1 Sandbanks. This would therefore be considered a lasting, not temporary, impact.

**vi. How the removal of any cable protection in the HHW SAC (i.e. at the end of the operational period) would alter the assessment of impacts.**

Natural England notes from discussions at the workshop on 23 January 2020 that Norfolk Vanguard intends to provide an assessment detailing their ability to do this. Natural England are happy to provide comment on this proposal when available and would advise that if it could be demonstrated that this could be done without causing damage to the interest features of the site we would support this.

Please note, it is the view of Natural England that as any cable protection will be in place for 30 years this should be considered a lasting not temporary impact.

**2. In-Principle Compensation Measures: General Comments**

Natural England welcomes the compensation proposals put forward by Norfolk Vanguard and appreciates the effort that has gone into pulling these together. Natural England recommends that Norfolk Vanguard presents all of the compensation measures detailing the benefits, limitations, viability and mechanisms for securing in a table format to be presented to the Secretary of State so that he/she can make a fully informed risk based decision.

Below are further comments on each proposal to aid in this process.

### **3. In-Principle Compensation Measures: Ornithology**

#### **a) Kittiwake at Flamborough and Filey Coast (FFC) Special Protection Area (SPA)**

##### **i. Predator Control**

Natural England welcomes the robust evidence and justification provided in the ornithological compensation measures document to support Norfolk Vanguard's position that it is unlikely that predator control would significantly increase breeding success of kittiwakes at FFC SPA. However, Natural England would recommend that Norfolk Vanguard still present this proposal, explaining why it has been discounted as a means of demonstrating that all possible mitigation measures have been explored.

##### **ii. Closure of sandeel fishing to benefit kittiwakes at Flamborough and Filey Coast SPA**

Natural England is broadly supportive of this proposal, however further detail is needed on:

- Mechanism for delivery;
- Location of delivery; and
- Metric to scale impacts and benefits, i.e. how do you calculate the area of closure needed to compensate for impact on kittiwake.

As discussed in the workshop on 23 January 2020 we believe that this is an appropriate longer term strategic compensation option for kittiwake and would be content to promote discussions with regulators and The Crown Estate to secure this going forwards.

Please note this option shouldn't be discounted due to delivery timeframes on the basis that other interim compensation measures could be implemented, for example artificial nest sites.

##### **iii. Construction of artificial nest sites to benefit kittiwakes in relation to impacts on kittiwakes from Flamborough and Filey Coast SPA**

Natural England considers that there are some question marks over whether nest space is a limiting factor for kittiwake at FFC SPA, or whether prey availability is the more limiting factor. However we are broadly supportive of the concept.

Natural England would recommend that further detail is provided on the mechanics of this proposal. This should include, but is not limited to:

- spatial analysis of the best location; and
- size of artificial structure needed.

Natural England recommends that Norfolk Vanguard presents a range of options with details of the feasibility of delivery. These could include (but not exclusively):

- Structure on the turbine;
- Additional structure (e.g. meteorological mast) within the array;
- Structures already present;
- Creation of a new structure outside of the SPA; and
- Compensation at already established coastal sites.

**b) Lesser black-backed Gull at Alde-Ore Estuary (A-OE) SPA**

- i. Establish an area within A-OE SPA that is protected by predator-proof fencing for lesser black-backed gulls to nest.**

Natural England is broadly supportive of this proposal. We would recommend that Norfolk Vanguard speak to the landowners (RSPB and National Trust) to see whether or not they are supportive of this proposal or whether they have any additional suggestions. Natural England also suggest checking whether this is something that is already intended to be secured through the Galloper S106 agreement.

**4. In Principle Compensation Measures: Haisborough, Hammond and Winterton SAC**

**a) Options in document**

- i. Establish an Annex 1 Reef at a location outside the HHW SAC**

Natural England does not consider this option as viable compensation for loss of Annex 1 *Sabellaria* reef as the proposal is to establish native oyster (*Ostrea edulis*) reef which is not a recognised Annex 1 habitat in the North Sea SACs and is therefore not maintaining the coherence of the network.

Natural England would therefore not support this proposal.

- ii. Extend the HHW SAC to encompass areas of Annex 1 Reef outside the SAC**

Natural England is supportive of this proposal and notes that there are some areas currently outside of the boundary of HHW SAC with Annex 1 reef.

Natural England recommends that Norfolk Vanguard liaises with Eastern Inshore Fisheries Conservation Authority (EIFCA) to seek their opinion on possible areas outside of the SAC boundary that could benefit from being included.

Please note, any extension of the HHW SAC would require sign-off from Defra.

- iii. Reduction in intrusive fishing methods**

Natural England is broadly supportive of this proposal, however further detail is needed. Natural England again suggests that Norfolk Vanguard liaises with EIFCA to seek their opinion on the practicalities of such measures. In addition it should also be recognised that fisheries management areas are already being implemented at higher confidence reef areas so any deviation from this may cause across sector conflict that would need to be resolved.

- iv. Removal of disused anthropogenic features**

Natural England is broadly supportive of this proposal, however further detail is needed on which structures would be removed. Natural England notes that there are several oil and gas pipelines that run through the site and it may be possible to liaise with the oil and gas industry to assist with the removal of these at the time of decommissioning.

## **b) Further Comments**

Natural England notes that there are other industry pressures on the features of HHW SAC that Norfolk Vanguard could consider reducing as part of the compensation options.

## **5. Site Integrity Plan (SIP)**

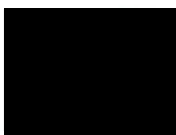
See general comments above in relation to our reservations in relation to the use of a SIP. However, we do support the provision of a SIP as a DCO/DML condition, prior to construction to affirm the assessment of the impacts.

If you have any questions relating to this letter please contact me using the details below.

The advice provided in this letter has been through Natural England's Quality Assurance process.

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely,



Jessica Taylor  
E-mail: [Jessica.Taylor@naturalengland.org.uk](mailto:Jessica.Taylor@naturalengland.org.uk)  
Telephone: 0208 225 8234



# Annex 3

Date: 04 February 2020  
Our ref: Norfolk Vanguard – Assessment of Additional Mitigation in the  
Haisborough, Hammond and Winterton Special Area of Conservation  
Your ref: NE;11.D10.C



Sterling House  
Dix's Field  
Exeter  
EX1 1QA

BY EMAIL ONLY

Dear Rebecca,

**RE: Natural England's comments on Assessment of Additional Mitigation in the Haisborough, Hammond and Winterton (HHW) Special Area of Conservation (SAC) Document (Ref: NE;11.D10.C)**

Natural England welcomes the provision of the revised benthic assessment document (ref: NE;11.D10.C) provided by Norfolk Vanguard on 27 January 2020 and appreciates the effort that has gone into pulling this document together. In addition we also acknowledge that a balanced view point, including that of Natural England, has been presented throughout the document.

Natural England has reviewed the revised document (ref: NE;11.D10.C) and welcomes the additional mitigation measures that Norfolk Vanguard has proposed to reduce down the impacts to Annex I Reef and Sandbank features. However, until we see the final submission to the Secretary of State and have sought legal input we are not in a position to comment further on to what extent Natural England agrees with the predicted scale of the impacts and overall conclusions of no adverse effect on integrity (AEoI). We, therefore, limit our comments to the technical comments below.

### **Technical comments**

#### **a) General Comments**

- i. Natural England doesn't disagree that the likelihood of implementing the MMO / Defra management area is some way off but there is still the potential for it to be implemented and delivering before 2025.
- ii. Natural England acknowledges that the extent of the impacts are small in relation to the extent of the site and potentially both site features, however, the amount of cable protection / hard infrastructure is still large and would result in a lasting impact. Therefore, we do not believe that the impacts can be considered as de minimis so continue to advise that there is a likely significant effect (LSE) and that an appropriate assessment (AA) is required.
- iii. Please note that our knowledge and understanding of the potential issues and impacts is constantly evolving so Natural England will raise precaution and potential risks to the Secretary of State in accepting what had previously been accepted for other projects.
- iv. Please note that because the site is in unfavourable condition doesn't therefore mean further impacts can occur within site. The condition status of the site / features is to provide context for any decision making it doesn't mean that there would be any 'doubling up' of unfavourable status. The features are either in unfavourable condition or not and the Norfolk Vanguard

project proposals will either hinder the recovery keeping it in unfavourable condition or they will not.

**b) Annex 1 Reef**

- i. Please note that the fisheries byelaw/management areas are for 'higher confidence Reef areas' and not 'priority' areas as all Reef within the Haisborough, Hammond and Winterton (HHW) Special Area of Conservation (SAC) is protected.
- ii. Natural England notes that the caption under Figure 1 refers to '*Priority Areas to be Managed as S. spinulosa Annex I reef by Natural England*'. Please note Natural England are not responsible for managing these areas, this will be the responsibility of Eastern Inshore Fisheries Conservation Authority (EIFCA) and Marine Management Organisation (MMO).
- iii. We advise that all areas of 'Reef' within HHW SAC are protected, not just those within byelaw areas, and therefore all impacts should be avoided.
- iv. With both Natural England and Norfolk Vanguard agreeing that *Sabellaria spinulosa* may extend further into the cable corridor the ability to micro site when also considering all of the non nature conservation restrictions may become considerably diminished.
- v. As previously set out during the Norfolk Vanguard and Boreas examination, Natural England doesn't agree with micro siting 'where possible' as being acceptable mitigation.
- vi. Natural England would also query the certainty that Norfolk Vanguard gives to there being no significant impact to Annex I Reef outside of byelaw areas as this is based on several unknowns.

**c) Annex 1 Sandbanks**

- i. Natural England disagrees that there will be no impact to the Annex I Sandbanks feature from cable protection.
- ii. Natural England notes that in point 20 and Figure 3 Norfolk Vanguard highlight the delineated Sandbank feature and buffer zone as areas of Annex I Sandbanks to be managed as Sandbanks. However, the sediment between Sandbanks is also important for the functioning of the Sandbanks, as well as for Reef formation, and therefore impacts occurring between features may still be detrimental to the feature(s). The 2016 survey identified that the species composition in these areas was similar to that of the species composition within the features. Put simplistically if these areas are sandy and dynamic they are considered important to / part of the Sandbank features and if stable and mixed sediment have the potential to support Reef habitat.
- iii. Of the 4 areas identified in Figure 3, A and B are within the Sandbank buffer area so there is no ambiguity as to the areas importance to the Sandbank system. C and D (between Hearty Knoll and Smith's Knoll) would have a clear link to both Sandbank and potentially Reef features based on experience from elsewhere in the site.

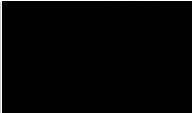
If you have any questions relating to this letter please contact me using the details below.

The advice provided in this letter has been through Natural England's Quality Assurance process.

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision

which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely,



Jessica Taylor  
E-mail: [Jessica.Taylor@naturalengland.org.uk](mailto:Jessica.Taylor@naturalengland.org.uk)  
Telephone: 0208 225 8234

# Annex 4

Date: 25 February 2020  
Our ref: Norfolk Vanguard



Sterling House  
Dix's Field  
Exeter  
EX1 1QA

BY EMAIL ONLY

Dear Rebecca,

**RE: Natural England's comments on Potential ornithological compensation measures for kittiwake at Flamborough and Filey Coast SPA and lesser black-backed gull at Alde-Ore Estuary.**

Thank you for consulting Natural England on 03 February 2020 on the above document. Natural England provides the following advice under our Discretionary Advice Service.

## **1. General comments**

Natural England welcomes the Vanguard Potential Ornithological Compensation Measures v2 document and believes it is in principle heading in the right direction. For example, fisheries management measures (although we note that this has not been included in the recently circulated document from Norfolk Vanguard on 'approach to securing compensation for European sites') and nesting ledge provision for kittiwakes from the Flamborough and Filey Coast (FFC) SPA, and predator proof fencing for lesser black-backed gulls (LBBG) at the Alde-Ore Estuary SPA have the potential to be considered as appropriate compensatory measures to address collision mortality impacts.

We welcome that Norfolk Vanguard has provided more information in this version of the report than the previous one, particularly in respect of the kittiwake evidence base and management options. However, there are still major matters of detail around the evidence base that require much greater analysis, and there are implementation/legal issues to fully understand and address. Consequently, it is difficult at this stage for Natural England to provide advice to Norfolk Vanguard on the appropriateness of the potential measures with respect to the points identified by the Secretary of State (SoS), or on the effectiveness of any compensatory measures and whether they will be sufficient to ensure that the overall coherence of the Natura 2000 network is protected. Nevertheless, we hope the advice that follows is helpful in developing these proposals further.

## **2. Detailed comments**

### **a) General**

With regard to Norfolk Vanguard's points for discussion with NE/MMO in relation to the potential need for a derogation case:

- Natural England notes that following receiving the 'Explanation of proposed draught height mitigation v2' document from Vanguard, the revised collision predictions are now 21 kittiwakes from the FFC SPA and 3 LBBGs from the Alde-Ore Estuary SPA, based on the new worst case scenario of 14.7MW turbines with a draught height of 30m above mean high water springs (MHWS). The predicted collision risk modelling (CRM) for the 11.55MW turbines now with a draught height of 35m above MHWS is lower (larger due to the increased draught height) at 14 kittiwakes from the FFC SPA and 2 LBBGs from the Alde-Ore Estuary SPA. Natural England therefore suggests that this potential compensation measures document is updated to reflect the revised commitment from Norfolk Vanguard to increase the draught heights for the various turbine options. We also advise that Vanguard considers our comments on the proposed draught height mitigation (which are in a separate response).
- The mitigation provided by Norfolk Vanguard must either avoid or reduce as far as possible the impacts associated with the development. That mitigation should mean the development will not, alone, have an adverse effect on the integrity of the SPAs. Any residual effects of the development which alone are not adverse must be considered in combination with the residual impacts of other plans and projects.
- Natural England agree that AEOI can be ruled out for both kittiwake at the FFC SPA and LBBG at the Alde-Ore Estuary SPA from Norfolk Vanguard alone and therefore, there is no need for compensation due to Norfolk Vanguard alone. However, we consider that it is not possible to rule out AEOI of these features due to in-combination collision mortality and that includes a contribution from Norfolk Vanguard. We note Natural England's advice during the Thanet Extension examination was that whilst this project made a small contribution to the in-combination collision mortality, Natural England advised the competent authority that it could not be concluded that there would be no adverse effect on the integrity of the site by the project, when considered in-combination.
- Coherence of the Natura 2000 network relates to securing and maintaining an ecologically coherent network of sites designated for the protection of relevant habitats and/or species across their natural range. It is important therefore that compensatory measures address what is being lost. Considerations should include the scale, location and timing of impacts with respect to the resource currently provided by the network for the species in question. In this case it is in relation to the features supported by the FFC SPA and the Alde-Ore Estuary SPA.
- Whilst Natural England might be able to discuss ideas around implementation, it is unlikely that we will be in a position to confirm that any one route has a high degree of certainty that it will work. With regard to timelines, Norfolk Vanguard and the Competent Authority will need to draw on European Commission Guidance on compensation. As stated in the European Commission's guidance on Article 6(4) of the Habitats Directive compensatory measures should be functioning and having the intended effect at the time of the construction of the development, to prevent a lag between the impact and it being addressed and the inherent uncertainty which comes with measures such as the creation of habitat. Accordingly Natural England would also expect that by the time a project was consented that the compensation was agreed, secured through the consent, and shown to be deliverable on the ground.

Below are links to guidance from Defra and the EEC on Article 6(4) of the Habitats directive:

- Defra guidance: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69622/pb13840-habitats-iropi-guide-20121211.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69622/pb13840-habitats-iropi-guide-20121211.pdf). As outlined in this guidance: *The Habitats Directive seeks to create a coherent ecological network of protected sites. Therefore if harm to one site is to be allowed (because there are no alternatives and IROPI can be shown) the Directive requires that all necessary compensatory measures are taken to ensure the overall coherence of the network of European sites as a whole is protected. Such measures must be decided on a case by case basis and aim to offset the negative effects caused by the plan or project.*

- EEC Guidance:  
[https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance\\_art6\\_4\\_en.pdf](https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/guidance_art6_4_en.pdf)

Both documents set out criteria upon which compensatory measures should be designed. These include, amongst other things:

- Targeted compensation (i.e. measures should be appropriate to the type of impact predicted and should be focused on objectives and targets clearly addressing the Natura 2000 elements affected);
- Effectiveness/technical feasibility;
- Extent of compensation;
- Location of compensation;
- Timing of compensation; and
- Long term implementation

Natural England acknowledge the challenges in identifying compensatory measures that meet all of the criteria and would always recommend that all options to avoid, reduce and/or mitigate the impacts are fully explored prior to any considerations of potential compensation. We note and welcome the efforts Vattenfall have made to reduce their impacts in conjunction with their consideration of the SoS's request for further information.

Given the challenges, we would anticipate that proposals of potential compensatory measures are likely to meet some aspects of the criteria better than others. Whilst Natural England may offer our views on the appropriateness and likely effectiveness of compensatory measures, we are mindful that the ultimate decision as to how to weight each of the criteria rests with the SoS. In consideration of this and the current stage of the Norfolk Vanguard application, our advice would be to provide the SoS/BEIS with as much information as possible to support any future decision making.

Natural England notes that while monitoring of the changes in breeding numbers of species such as kittiwake and or LBBG at the affected SPAs or other sites will be needed as part of the package of measures, monitoring in itself is **not** a compensation measure.

#### **b) Kittiwake compensation**

##### **i. Mammal predation:**

Given the suggestion in paragraph 22 that the key issue for kittiwakes in the Isles of Scilly in recent years following rat eradication has been a shortage of food, it would seem reasonable to assume that any attempt to increase breeding numbers elsewhere to the south of the FFC SPA could face the same food limitation issue. We would need assurance therefore that this would not be the case.

We agree with Norfolk Vanguard that it is unlikely that predator control would significantly increase breeding success of kittiwake colonies to offset the predicted collision mortalities from the FFC SPA.

##### **ii. Closure of sandeel fishing:**

We agree that in principle, the enhancement of sandeel populations through the reduction or removal of fishing of the sandeel stocks on which FFC kittiwakes rely, is likely to be beneficial to that kittiwake population (and a number of other species), and would be a compensatory measure worth exploring further. However, we acknowledge that the likely scale of benefit is dependent on the scale of sandeel mortality reduction or whether this is likely to be constrained by other environmental drivers (e.g. increases in abundance of sandeel predators, climate change, and changes in sandeel prey abundance). We also note that there is a considerable element of uncertainty of success of such a measure and this should be fully considered by Norfolk Vanguard in the information provided to the SoS/BEIS.



We recognise that this sort of compensation proposal has the potential to provide orders of magnitude greater than the risk from the Norfolk Vanguard development in isolation. We agree that it is likely to be difficult to precisely deliver the exact amount of compensation required for Norfolk Vanguard, and that it also would be very difficult to measure the effect of the very small change to productivity required to compensate for loss of the predicted number of kittiwakes predicted due to this development.

In that context, we agree that any fisheries management measure would be better considered as a strategic opportunity for compensation for multiple windfarms contributing to the in-combination total predicted impact. However, a more detailed analysis of the predicted scale of benefits would help make a more robust case for implementing this measure, and to demonstrate the scale of sandeel fishing reduction that would be required. Also, it should be noted that there will not be insignificant procedural/political issues around implementing restrictions or closures and further dialogue with the appropriate Government Departments would be necessary.

iii. Construction of artificial nest sites

We agree that in principle, the provision of additional nest sites for kittiwakes in the southern North Sea/south-east of England might have the potential to be of benefit to the regional kittiwake population. However, we feel that greater confidence is needed on the following relevant issues:

- i) That there would be a net benefit to the overall kittiwake population size (not just simply causing a redistribution); and
- ii) That there are sufficient food resources within likely foraging range around any new location to support the required level of productivity.

Site selection could be informed by the modelled distribution of kittiwake from the FFC SPA shown in Cleasby et al. (2018) and analysis of population trends/productivity of kittiwake colonies in East Anglia with those in south-east England and the Channel, drawing on Hamilton et al. (2016), in order to help identify locations that are most likely to host productive kittiwakes over the project lifetime.

The compensation aspect of creating additional nesting sites would presumably involve the cost of purchasing/leasing the structure (for its new purpose), modifying it as needed, and then maintaining it and monitoring success. Alternatively a bespoke structure may need to be installed. We raise the question for the SoS as to how to ensure that the structure is part of the Natura 2000 network and ensure it is appropriately protected and managed.

**c) Lesser black-backed gull (LBBG) compensation**

i. Sandeel fisheries:

We agree with Norfolk Vanguard that based on studies of diet and tracking of breeding adults suggesting that sandeels are not an important component of the diet of LBBGs, changes to sandeel fishery management are unlikely to represent a strong measure for compensation in relation to LBBG.

ii. Construction of an area protected by predator-proof fencing:

We agree that in principle the installation of predator proof fencing would have the potential to benefit for LBBGs at the Alde-Ore Estuary SPA. However, there are other factors (including site suitability and management issues) which need to be considered.

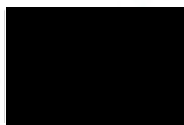
In relation to Norfolk Vanguard's short-term approach suggestion of Norfolk Vanguard making a proportionate contribution to the Alde-Ore Estuary SPA fund already established under the Galloper Section 106 Agreement, we would question whether this could be considered as a compensatory measure. The s106 agreement with Galloper was not compensation but was considered mitigation and therefore raises the issue of additionality.

If you have any questions relating to this letter please contact me using the details below.

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Yours sincerely,



Jessica Taylor  
E-mail: [Jessica.Taylor@naturalengland.org.uk](mailto:Jessica.Taylor@naturalengland.org.uk)  
Telephone: 0208 225 8234

## REFERENCES

Cleasby, I.R., Owen, E., Wilson, L.J. & Bolton, M. (2018) *Combining habitat modelling and hotspot analysis to reveal the location of high density seabird areas across the UK: Technical Report*. RSPB Research Report 63.

Hamilton, T.M., Brown, A. & Lock, L. (2016) Kittiwake declines extend to southern England and beyond: an update on colonies at the southern edge of the species' Northeast Atlantic range. *British Birds*, **109**(4): 199-210.

# Annex 5

Date: 25 February 2020  
Our ref: Norfolk Vanguard



Sterling House  
Dix's Field  
Exeter  
EX1 1QA

BY EMAIL ONLY

Dear Rebecca,

**RE: Natural England's Comments on Norfolk Vanguard Headroom in Offshore Ornithological Impacts.**

Thank you for consulting Natural England on 03 February on the above document. Natural England provides the following advice under our Discretionary Advice Service.

**Summary**

Whilst Natural England a) acknowledges the work that Norfolk Vanguard and their consultants have done to consider potential headroom in the in-combination/cumulative collision risk figures by assessing the 'as built' rather than the worst case scenario (WCS) and b) doesn't disagree that there is likely to be some headroom; the exact extent of any potential headroom is not agreed. Therefore, until the uncertainties set out below are addressed and an industry wide approach is agreed we recommend that the default 'standard' approach is appropriate.

**1. Background to issues**

Natural England agrees with Norfolk Vanguard that the standard approach to cumulative and in-combination assessments is to use the consented parameters of each project and to refer to the worst case scenario (WCS) assessed within the relevant Environmental Statement, taking account of any updated assessments provided throughout the examination process.

As offshore windfarms are consented based on the Rochdale Envelope approach, the worst case scenarios predicted within the Environmental Statements (ESs) are often different to the predicted impacts from the project 'as built' i.e. once the design is finalised/constructed. Consequently, the use of collision risk estimates calculated based on worst case scenarios may lead to a potential over-estimate of the total cumulative or in-combination assessments in terms of both EIA and HRA. However, It is also possible that the predicted impacts from 'as built' designs are greater than those predicted in the ES e.g. the collision mortalities at Lincs OWF increased after application of the correction factor used when calculating the impacts of 'as built' development.

Within the 'Headroom in Ornithological Impacts' documents, we note that Norfolk Vanguard is seeking to reassess/redefine collision risk for some consented projects where you consider that the 'as-built' or consented scenarios for projects is different to the WCS that was originally assessed.

Please be advised that whilst this is recognised as an issue, it is a highly complex one, and **it is important to note that there is not yet an agreed way forward**. This approach has also not been subjected to judicial scrutiny, which is why previous Applicants have largely continued to use the standard approach of referring back to the original assessments in the Environmental Statement, in line with Natural England's broad advice on the matter.

## **2. Natural England's previous advice on assessed vs consented and as built**

As Natural England has stated previously during the Norfolk Vanguard examination, we consider that in order for the Examining Authority/Secretary of State (SoS) to be able to factor in retrospective changes to the collision figures for projects in the cumulative and in-combination assessments, Norfolk Vanguard would need to:

- Provide documentary proof that the design envelope used to calculate new collision figures is:
  - Secured through a licensing or legally binding mechanism with no further change possible;
  - In addition, for projects that are not built, it should be demonstrated that the design parameters proposed for any updated collision risk modelling (CRM) do not exceed the worst case scenario design envelope for collision mortality of the species of concern e.g. through consideration of other layouts/turbine options and evidence that the total rotor swept area/CRM for these options are lower than for the design envelope.
- For projects where revisions to the turbine design parameters can be used to update CRM figures (i.e. where there is a new design envelope which is secured through appropriate conditions or legally binding commitments), Natural England would need to agree the appropriate model/option and parameters for the updated CRM figures.
- Our advice is that in these circumstances CRM should be re-run to generate updated collision figures against any agreed changes to turbine design layouts. Where this is not possible for a project because the original bird density data cannot be obtained, we would need to agree whether it is possible for correction ratios to be calculated (for example following an approach such as that presented in Trinder (2017)<sup>1</sup>). Natural England advise that simplistic scaling of collision figures based on reductions in turbine numbers from the consented number should not be used, for example due to variation in flight activity at different heights and differences in turbine parameters such as rotor speeds.

Where these requirements cannot be met, cumulative assessments should be based on consented worst case scenarios.

## **3. Norfolk Vanguard's position and Natural England's comments on this**

### **d) Assessed vs consented schemes**

Norfolk Vanguard has identified three projects (Hornsea Project One, Triton Knoll and Race Bank) where the figures used in their cumulative/in-combination CRM are currently derived from the worst case scenario assessed, as opposed to the final scheme consented. In paragraph 2 of their headroom document Norfolk Vanguard notes that:

*'In each case either the original Development Consent Order, or a non-material change, or a section 36 variation has reduced the parameters in the consent from what was originally assessed as the*

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<sup>1</sup> Trinder, M. (2017) *Estimates of Ornithological Headroom in Offshore Wind Farm Collision Mortality*. Report to The Crown Estate.

*worst case and therefore considers, as for the East Anglia ONE decision, it must be without doubt that headroom has been created by those three projects and that such headroom is "legally secured".*

Natural England agrees that in such instances this is "legally secured" because it is those reduced parameters which are consented with under the DCO or under the DCO as changed/varied.

However, please note that Hornsea Project One applied for a non-material change which increased their capacity from 1200MW to 1218MW so that they could use 174 of the Siemens 7MW turbines that they thought they were most likely to actually install. But their consent still allowed various other configurations and so the WCS is still available. Therefore whilst legally secured at the time of DCO/DML change there was still the potential for the WCS to be built.

#### **e) Consented vs as-built schemes**

On consented versus as-built schemes, in paragraph 3 of the headroom document, Norfolk Vanguard notes:

*'...There are a number of reasons why the as-built schemes (and their associated parameters) for projects such as Hornsea Project One, Triton Knoll and Race Bank are "legally secured". This is partly due to the way in which the DML conditions require approval of final layouts and certification of final layouts on completion of construction. The Applicant notes that their submission is no different to the MMO's and Natural England's recent (draft) advice on cable protection – that is to say that new areas of cable protection cannot be installed following certification that construction has completed. This is not least because in the 8 cases which the Applicant has so far considered, the age of the environmental information is now in excess of seven years. As Natural England state in their recent position statement on new areas of cable protection, environmental information which is more than five years old would be considered out of date and updated environmental information would be required. This includes any requirement for a further Habitats Regulation Assessment, which would therefore amount to a material change requiring a new consent...'*

In response to the above we raise the following points:

- i. It is Natural England's view that for those projects identified above the marine licence and/or DCO/DMLs do not have a specific requirement to provide information on the as built parameters upon the completion of construction. They also do not have a condition that clearly specifies that the built project becomes fixed for the lifetime of the DCO/DML. In addition phased builds are challenging in this situation as there were no limitations for the timings of any subsequent phases. Therefore, we believe that this remains too ambiguous to say it is legally committed to for these projects.
- ii. The age of the data scenario presented above by Norfolk Vanguard has never been legally tested, and to do so would require regulatory input. One potential implication of the above argument would be that if an Applicant is going to use this data to re run CRM modelling there would be inherent issues with the age of the data, how data was collected and compatibility with current survey platforms and modelling such that the original surveys may have under/over-estimated abundance, distribution and flight height, but there is no way of knowing this. Therefore, it may be overly simplistic to say there is headroom with certainty. If the above is taken forwards there needs to be a consistent strategic approach agreed in an industry wide forum and the developer for the project/s in question should have the right to reply on what they think the as built collision risk for their project/s are.

#### **f) Is there headroom Norfolk Vanguard could use?**

Please be advised that if Norfolk Vanguard successfully identify headroom this does not necessarily mean that headroom is the project's to utilise, as it is presently unclear how BEIS might take account of headroom in the context of deciding on multiple projects not yet consented.

#### **4. Updated CRM undertaken by Norfolk Vanguard for Hornsea Project One**

We note that Norfolk Vanguard has undertaken updated CRM for Hornsea Project One (HOW01) using the Band (2012) model for both the consented (5MW turbines) and the non-material change and subsequently constructed (7MW turbines) layouts, and has included copies of the model input and output spreadsheets for kittiwake. It appears from the information presented that Norfolk Vanguard has used the bird density data from Table C.164 from the HOW01 Environmental Statement Ornithology Technical Report. Natural England is unclear whether Table C.164 of this document does contain the correct density data used in the HOW01 CRM, as there were several iterations of the CRM through the HOW01 examination, and during the examination it was unclear to Natural England where the density data used in the CRM came from, and there were unresolved discrepancies between the figures in the tables presented.

For HOW01 Norfolk Vanguard has focused on presenting the CRM figures for all layouts for Option 1 of the Band model. Natural England continues to have several significant unresolved concerns regarding the robustness of the site-specific flight height data used in the CRM of Hornsea projects, and has consistently advocated the use of Option 2 in preference to Option 1 outputs. Therefore, we are concerned that Norfolk Vanguard and Boreas have incorporated the Hornsea Project TWO cumulative assessment, into their in-combination/cumulative assessments because only Option 1 figure with a 98.9% avoidance rate for kittiwake of 122 (for EIA) collisions from HOW01 was used for the 332 x 5MW turbines. Natural England is therefore unsure what Norfolk Vanguard's updated CRM assessments represent – given that HOW01 did updated CRM assessments based on 174 x 7MW turbines and they had already done various iterations of **240** x 5MW turbines during the Examination. Therefore, due to the uncertainty in the CRM assessments undertaken and agreed for HOW01 we believe there is a high risk that Norfolk Vanguard's assessments of Headroom could be incorporating significant errors such that there may not be sufficient headroom.

We note that paragraph 7 of Annex 1 suggests that the turbine parameters presented in Table 1.3 and hence used in the revised CRM for the 174 x 7MW turbines come from the HOW01 non-material change document. However, we note that the predicted kittiwake collision figures that HOW01 calculated for 174 x 7MW turbines when they did their non-material change are different to those presented by Norfolk Vanguard, and seek clarification regarding this. We are also uncertain of whether the 7MW turbine specifications presented in Table 1.3 are the exact specifications of the 7MW turbines that have actually been built at HOW01 as if this is not the case, the revised CRM may not actually reflect the 'as built' turbines. This would also apply to the adjusted figure from the approach developed for The Crown Estate by MacArthur Green.

#### **5. Use of approach developed for The Crown Estate by MacArthur Green (Trinder 2017)**

As set out in our response to Examining Authority question 2.2.38 during the Hornsea Project Three examination (submitted at Deadline 6 of this examination<sup>2</sup>, dated 07 February 2019), Natural England

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<sup>2</sup> Natural England (2019) Hornsea Project Three Offshore Wind Farm – Natural England Written Submission for Deadline 6: ISH 5 Annex G: Natural England's Comments on the Applicant's Response to ExA Q2.2.38 [Ornithology, Cumulative and in-combination Assessment]. Available from: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010080/EN010080-001695-Natural%20England%20-%20ISH5%20Annex%20G->



considers it important to make the overarching point that The Crown Estate commissioned the Trinder (2017) report in order to better understand the potential level of 'headroom' for their own purposes (i.e. potentially to inform their decisions on future leasing rounds) and that it was not the intention that the figures from this report, or the methods outlined within it, were used to revise the in-combination assessments of current and future applications.

Natural England reiterates the comment made during the Hornsea Project Three examination (at Deadline 6 of this examination<sup>2</sup>, dated 07 February 2019) that Natural England has not checked the details of the calculation for scaling collisions as set out in Trinder (2017), but in principle Natural England is of the view that the calculation method is valid. However, there are a number of issues which mean that the results obtained will not always be accurate. These include the availability of accurate data on the input parameters used in the original modelling and the actual predicted collision figures eventually arrived at in the course of an examination, as these may change several times.

Consequently, Natural England does not advise that it is used as a method for altering the collision figures of planned and consented projects. We note that during the Hornsea Project Three examination, there was an attempt to update the parameters in Trinder (2017) for some offshore wind farms due to this very issue. However, further errors and/or issues were identified with this (full details are set out in Natural England's Deadline 6 response of the Hornsea Project Three examination to ExA question 2.2.38<sup>2</sup>, dated 07 February 2019). For these reasons, Natural England does not consider there to be robust evidence available for these corrections. There are also issues regarding having the actual turbine specifications for the 'as built' turbines – in the case of the updates undertaken by the Hornsea Project Three Applicant, these were done by simply referencing manufacturer information for particular turbine models as evidence of the 'as built' layout for the majority of projects. As noted in our Deadline 6 response to ExA question 2.2.38 at Hornsea Project Three<sup>2</sup>, while these may reflect the actual built turbine parameters, it is not a sufficient audit trail with respect to individual projects. Therefore consultation with the MMO may be required to obtain the parameters from the construction management plan

Whilst Norfolk Vanguard may have demonstrated in this document that taking the approach developed in Trinder (2017) produces the same predicted collision figure as that obtained through recalculation from the original dataset (using the Band spreadsheets) for HOW01, we note that this has only been demonstrated for one project and given the issues noted above, it is likely that this would not be the case for every project.

## 6. Conclusion

Given these issues, our position remains that CRM should be re-run to generate updated collision figures against any agreed changes to turbine design layouts. Where this is not possible for a project, because original bird density data cannot be obtained, we would need to agree whether correction ratios can be calculated (for example following an approach such as that presented in Trinder (2017)). Natural England would need to see the full calculation details for these correction factors. It is Natural England's advice that simplistic scaling of collision figures based on reductions in turbine numbers from the consented number should not be used, for example due to variation in flight activity at different heights and differences in turbine parameters such as rotor speeds. There are also case-specific issues that need to be addressed: Natural England notes that the Race Bank assessment didn't use the Band model, and was based on the Folkerts model (also used for Dudgeon).

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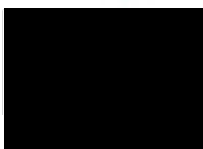
As noted during the Norfolk Boreas Issue Specific Hearing on 22 January 2020<sup>3</sup>, Natural England has been raising the issue of whether as built or consented projects should be considered for in-combination effects with The Crown Estate and we note the need for a strategic approach to this issue. If conducted simply on a project-by-project basis this has significant risks of inconsistency of approach across applications. Therefore, we consider that this issue needs to be addressed strategically on behalf of the whole sector, including developing consensus on an approach. However, we do recognise that this is not possible in time for the Norfolk Vanguard determination deadline.

If you have any questions relating to this letter please contact me using the details below.

The advice provided in this letter has been through Natural England's Quality Assurance process.

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Yours sincerely,



Jessica Taylor  
E-mail: [Jessica.Taylor@naturalengland.org.uk](mailto:Jessica.Taylor@naturalengland.org.uk)  
Telephone: 0208 225 8234

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<sup>3</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-001630-DL4%20-%20Natural%20England%20-%20Written%20Representation%20of%20Oral%20Case.pdf>

# Annex 6

Date: 25 February 2020  
Our ref: Norfolk Vanguard



Sterling House  
Dix's Field  
Exeter  
EX1 1QA

BY EMAIL ONLY

Dear Rebecca,

**RE: Natural England's Comments on Norfolk Vanguard Headroom in Offshore Ornithological Impacts.**

Thank you for consulting Natural England on 03 February on the above document. Natural England provides the following advice under our Discretionary Advice Service.

**Summary**

Whilst Natural England a) acknowledges the work that Norfolk Vanguard and their consultants have done to consider potential headroom in the in-combination/cumulative collision risk figures by assessing the 'as built' rather than the worst case scenario (WCS) and b) doesn't disagree that there is likely to be some headroom; the exact extent of any potential headroom is not agreed. Therefore, until the uncertainties set out below are addressed and an industry wide approach is agreed we recommend that the default 'standard' approach is appropriate.

**7. Background to issues**

Natural England agrees with Norfolk Vanguard that the standard approach to cumulative and in-combination assessments is to use the consented parameters of each project and to refer to the worst case scenario (WCS) assessed within the relevant Environmental Statement, taking account of any updated assessments provided throughout the examination process.

As offshore windfarms are consented based on the Rochdale Envelope approach, the worst case scenarios predicted within the Environmental Statements (ESs) are often different to the predicted impacts from the project 'as built' i.e. once the design is finalised/constructed. Consequently, the use of collision risk estimates calculated based on worst case scenarios may lead to a potential over-estimate of the total cumulative or in-combination assessments in terms of both EIA and HRA. However, It is also possible that the predicted impacts from 'as built' designs are greater than those predicted in the ES e.g. the collision mortalities at Lincs OWF increased after application of the correction factor used when calculating the impacts of 'as built' development.

Within the 'Headroom in Ornithological Impacts' documents, we note that Norfolk Vanguard is seeking to reassess/redefine collision risk for some consented projects where you consider that the 'as-built' or consented scenarios for projects is different to the WCS that was originally assessed.

Please be advised that whilst this is recognised as an issue, it is a highly complex one, and **it is important to note that there is not yet an agreed way forward**. This approach has also not been subjected to judicial scrutiny, which is why previous Applicants have largely continued to use the standard approach of referring back to the original assessments in the Environmental Statement, in line with Natural England's broad advice on the matter.

## **8. Natural England's previous advice on assessed vs consented and as built**

As Natural England has stated previously during the Norfolk Vanguard examination, we consider that in order for the Examining Authority/Secretary of State (SoS) to be able to factor in retrospective changes to the collision figures for projects in the cumulative and in-combination assessments, Norfolk Vanguard would need to:

- Provide documentary proof that the design envelope used to calculate new collision figures is:
  - Secured through a licensing or legally binding mechanism with no further change possible;
  - In addition, for projects that are not built, it should be demonstrated that the design parameters proposed for any updated collision risk modelling (CRM) do not exceed the worst case scenario design envelope for collision mortality of the species of concern e.g. through consideration of other layouts/turbine options and evidence that the total rotor swept area/CRM for these options are lower than for the design envelope.
- For projects where revisions to the turbine design parameters can be used to update CRM figures (i.e. where there is a new design envelope which is secured through appropriate conditions or legally binding commitments), Natural England would need to agree the appropriate model/option and parameters for the updated CRM figures.
- Our advice is that in these circumstances CRM should be re-run to generate updated collision figures against any agreed changes to turbine design layouts. Where this is not possible for a project because the original bird density data cannot be obtained, we would need to agree whether it is possible for correction ratios to be calculated (for example following an approach such as that presented in Trinder (2017)<sup>4</sup>). Natural England advise that simplistic scaling of collision figures based on reductions in turbine numbers from the consented number should not be used, for example due to variation in flight activity at different heights and differences in turbine parameters such as rotor speeds.

Where these requirements cannot be met, cumulative assessments should be based on consented worst case scenarios.

## **9. Norfolk Vanguard's position and Natural England's comments on this**

### **g) Assessed vs consented schemes**

Norfolk Vanguard has identified three projects (Hornsea Project One, Triton Knoll and Race Bank) where the figures used in their cumulative/in-combination CRM are currently derived from the worst case scenario assessed, as opposed to the final scheme consented. In paragraph 2 of their headroom document Norfolk Vanguard notes that:

*'In each case either the original Development Consent Order, or a non-material change, or a section 36 variation has reduced the parameters in the consent from what was originally assessed as the*

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<sup>4</sup> Trinder, M. (2017) *Estimates of Ornithological Headroom in Offshore Wind Farm Collision Mortality*. Report to The Crown Estate.

*worst case and therefore considers, as for the East Anglia ONE decision, it must be without doubt that headroom has been created by those three projects and that such headroom is "legally secured".*

Natural England agrees that in such instances this is "legally secured" because it is those reduced parameters which are consented with under the DCO or under the DCO as changed/varied.

However, please note that Hornsea Project One applied for a non-material change which increased their capacity from 1200MW to 1218MW so that they could use 174 of the Siemens 7MW turbines that they thought they were most likely to actually install. But their consent still allowed various other configurations and so the WCS is still available. Therefore whilst legally secured at the time of DCO/DML change there was still the potential for the WCS to be built.

#### **h) Consented vs as-built schemes**

On consented versus as-built schemes, in paragraph 3 of the headroom document, Norfolk Vanguard notes:

*'...There are a number of reasons why the as-built schemes (and their associated parameters) for projects such as Hornsea Project One, Triton Knoll and Race Bank are "legally secured". This is partly due to the way in which the DML conditions require approval of final layouts and certification of final layouts on completion of construction. The Applicant notes that their submission is no different to the MMO's and Natural England's recent (draft) advice on cable protection – that is to say that new areas of cable protection cannot be installed following certification that construction has completed. This is not least because in the 8 cases which the Applicant has so far considered, the age of the environmental information is now in excess of seven years. As Natural England state in their recent position statement on new areas of cable protection, environmental information which is more than five years old would be considered out of date and updated environmental information would be required. This includes any requirement for a further Habitats Regulation Assessment, which would therefore amount to a material change requiring a new consent...'*

In response to the above we raise the following points:

- iii. It is Natural England's view that for those projects identified above the marine licence and/or DCO/DMLs do not have a specific requirement to provide information on the as built parameters upon the completion of construction. They also do not have a condition that clearly specifies that the built project becomes fixed for the lifetime of the DCO/DML. In addition phased builds are challenging in this situation as there were no limitations for the timings of any subsequent phases. Therefore, we believe that this remains too ambiguous to say it is legally committed to for these projects.
- iv. The age of the data scenario presented above by Norfolk Vanguard has never been legally tested, and to do so would require regulatory input. One potential implication of the above argument would be that if an Applicant is going to use this data to re run CRM modelling there would be inherent issues with the age of the data, how data was collected and compatibility with current survey platforms and modelling such that the original surveys may have under/over-estimated abundance, distribution and flight height, but there is no way of knowing this. Therefore, it may be overly simplistic to say there is headroom with certainty. If the above is taken forwards there needs to be a consistent strategic approach agreed in an industry wide forum and the developer for the project/s in question should have the right to reply on what they think the as built collision risk for their project/s are.

#### **i) Is there headroom Norfolk Vanguard could use?**

Please be advised that if Norfolk Vanguard successfully identify headroom this does not necessarily mean that headroom is the project's to utilise, as it is presently unclear how BEIS might take account of headroom in the context of deciding on multiple projects not yet consented.

## 10. Updated CRM undertaken by Norfolk Vanguard for Hornsea Project One

We note that Norfolk Vanguard has undertaken updated CRM for Hornsea Project One (HOW01) using the Band (2012) model for both the consented (5MW turbines) and the non-material change and subsequently constructed (7MW turbines) layouts, and has included copies of the model input and output spreadsheets for kittiwake. It appears from the information presented that Norfolk Vanguard has used the bird density data from Table C.164 from the HOW01 Environmental Statement Ornithology Technical Report. Natural England is unclear whether Table C.164 of this document does contain the correct density data used in the HOW01 CRM, as there were several iterations of the CRM through the HOW01 examination, and during the examination it was unclear to Natural England where the density data used in the CRM came from, and there were unresolved discrepancies between the figures in the tables presented.

For HOW01 Norfolk Vanguard has focused on presenting the CRM figures for all layouts for Option 1 of the Band model. Natural England continues to have several significant unresolved concerns regarding the robustness of the site-specific flight height data used in the CRM of Hornsea projects, and has consistently advocated the use of Option 2 in preference to Option 1 outputs. Therefore, we are concerned that Norfolk Vanguard and Boreas have incorporated the Hornsea Project TWO cumulative assessment, into their in-combination/cumulative assessments because only Option 1 figure with a 98.9% avoidance rate for kittiwake of 122 (for EIA) collisions from HOW01 was used for the 332 x 5MW turbines. Natural England is therefore unsure what Norfolk Vanguard's updated CRM assessments represent – given that HOW01 did updated CRM assessments based on 174 x 7MW turbines and they had already done various iterations of 240 x 5MW turbines during the Examination. Therefore, due to the uncertainty in the CRM assessments undertaken and agreed for HOW01 we believe there is a high risk that Norfolk Vanguard's assessments of Headroom could be incorporating significant errors such that there may not be sufficient headroom.

We note that paragraph 7 of Annex 1 suggests that the turbine parameters presented in Table 1.3 and hence used in the revised CRM for the 174 x 7MW turbines come from the HOW01 non-material change document. However, we note that the predicted kittiwake collision figures that HOW01 calculated for 174 x 7MW turbines when they did their non-material change are different to those presented by Norfolk Vanguard, and seek clarification regarding this. We are also uncertain of whether the 7MW turbine specifications presented in Table 1.3 are the exact specifications of the 7MW turbines that have actually been built at HOW01 as if this is not the case, the revised CRM may not actually reflect the 'as built' turbines. This would also apply to the adjusted figure from the approach developed for The Crown Estate by MacArthur Green.

## 11. Use of approach developed for The Crown Estate by MacArthur Green (Trinder 2017)

As set out in our response to Examining Authority question 2.2.38 during the Hornsea Project Three examination (submitted at Deadline 6 of this examination<sup>5</sup>, dated 07 February 2019), Natural England

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<sup>5</sup> Natural England (2019) Hornsea Project Three Offshore Wind Farm – Natural England Written Submission for Deadline 6: ISH 5 Annex G: Natural England's Comments on the Applicant's Response to ExA Q2.2.38 [Ornithology, Cumulative and in-combination Assessment]. Available from: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010080/EN010080-001695-Natural%20England%20-%20ISH5%20Annex%20G->

considers it important to make the overarching point that The Crown Estate commissioned the Trinder (2017) report in order to better understand the potential level of 'headroom' for their own purposes (i.e. potentially to inform their decisions on future leasing rounds) and that it was not the intention that the figures from this report, or the methods outlined within it, were used to revise the in-combination assessments of current and future applications.

Natural England reiterates the comment made during the Hornsea Project Three examination (at Deadline 6 of this examination<sup>2</sup>, dated 07 February 2019) that Natural England has not checked the details of the calculation for scaling collisions as set out in Trinder (2017), but in principle Natural England is of the view that the calculation method is valid. However, there are a number of issues which mean that the results obtained will not always be accurate. These include the availability of accurate data on the input parameters used in the original modelling and the actual predicted collision figures eventually arrived at in the course of an examination, as these may change several times.

Consequently, Natural England does not advise that it is used as a method for altering the collision figures of planned and consented projects. We note that during the Hornsea Project Three examination, there was an attempt to update the parameters in Trinder (2017) for some offshore wind farms due to this very issue. However, further errors and/or issues were identified with this (full details are set out in Natural England's Deadline 6 response of the Hornsea Project Three examination to ExA question 2.2.38<sup>2</sup>, dated 07 February 2019). For these reasons, Natural England does not consider there to be robust evidence available for these corrections. There are also issues regarding having the actual turbine specifications for the 'as built' turbines – in the case of the updates undertaken by the Hornsea Project Three Applicant, these were done by simply referencing manufacturer information for particular turbine models as evidence of the 'as built' layout for the majority of projects. As noted in our Deadline 6 response to ExA question 2.2.38 at Hornsea Project Three<sup>2</sup>, while these may reflect the actual built turbine parameters, it is not a sufficient audit trail with respect to individual projects. Therefore consultation with the MMO may be required to obtain the parameters from the construction management plan

Whilst Norfolk Vanguard may have demonstrated in this document that taking the approach developed in Trinder (2017) produces the same predicted collision figure as that obtained through recalculation from the original dataset (using the Band spreadsheets) for HOW01, we note that this has only been demonstrated for one project and given the issues noted above, it is likely that this would not be the case for every project.

## 12. Conclusion

Given these issues, our position remains that CRM should be re-run to generate updated collision figures against any agreed changes to turbine design layouts. Where this is not possible for a project, because original bird density data cannot be obtained, we would need to agree whether correction ratios can be calculated (for example following an approach such as that presented in Trinder (2017)). Natural England would need to see the full calculation details for these correction factors. It is Natural England's advice that simplistic scaling of collision figures based on reductions in turbine numbers from the consented number should not be used, for example due to variation in flight activity at different heights and differences in turbine parameters such as rotor speeds. There are also case-specific issues that need to be addressed: Natural England notes that the Race Bank assessment didn't use the Band model, and was based on the Folkerts model (also used for Dudgeon).

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[%20Natural%20England%E2%80%99s%20Comments%20on%20the%20Applicant%E2%80%99s%20response%20to%20ExA%20Q2.2.38.pdf](#)



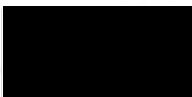
As noted during the Norfolk Boreas Issue Specific Hearing on 22 January 2020<sup>6</sup>, Natural England has been raising the issue of whether as built or consented projects should be considered for in-combination effects with The Crown Estate and we note the need for a strategic approach to this issue. If conducted simply on a project-by-project basis this has significant risks of inconsistency of approach across applications. Therefore, we consider that this issue needs to be addressed strategically on behalf of the whole sector, including developing consensus on an approach. However, we do recognise that this is not possible in time for the Norfolk Vanguard determination deadline.

If you have any questions relating to this letter please contact me using the details below.

The advice provided in this letter has been through Natural England's Quality Assurance process.

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely,



Jessica Taylor  
E-mail: [Jessica.Taylor@naturalengland.org.uk](mailto:Jessica.Taylor@naturalengland.org.uk)  
Telephone: 0208 225 8234

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<sup>6</sup> <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-001630-DL4%20-%20Natural%20England%20-%20Written%20Representation%20of%20Oral%20Case.pdf>

# Annex 7

Date: 28 February 2020  
Our ref: Norfolk Vanguard



Sterling House  
Dix's Field  
Exeter  
EX1 1QA

BY EMAIL ONLY

Dear Rebecca,

**RE: Natural England's Comments on Norfolk Vanguard Haisborough Hammond and Winterton (HHW) SAC draft Deemed Marine Licence Conditions to Secure Mitigation and Approach to Securing Compensation for European Sites Documents.**

Thank you for consulting Natural England on 18 February on the above documents. Natural England provides the following advice under our Discretionary Advice Service.

**1. Haisborough Hammond and Winterton (HHW) SAC draft Deemed Marine Licence Conditions to Secure Mitigation Document**

Natural England welcomes the provision of this document and the conditions there in, and considers that this broadly meets the requirement. However, we have the following comments:

In response to Paragraph 2.2: Race Bank was a round 2 project and lessons have been learnt following years of development of offshore wind projects. There were many concerns raised on the project and additional HRA processes due. Natural England did not agree with the approach taken during the original application and did not agree with the conclusions of the several HRAs produced with regard to micro siting around Annex I reef. Given the resultant works and the technical issues that arose during this process we would not recommend any project adopt a similar approach.

Annex 2: Natural England notes that if, as we advised, the SIP is not appropriate a mitigation plan of some sort will still be needed to ensure that mitigation is secured within the DML. The proposed condition details a requirement for a cable specification, installation and monitoring plan. Monitoring is not mitigation, and the plan should be a cable specification, installation and mitigation plan to ensure that mitigation is included. Additionally monitoring of this mitigation is required and this monitoring should be secured through a separate condition within the monitoring section of the DMLs and details of the expected monitoring should be further provided within an updated In Principle Monitoring Plan.

Please note, Natural England supports the position of the Marine Management Organisation (MMO) that it would be beneficial to keep all monitoring together in one document as this will ensure all parties are clear about which documents are related to monitoring and when these will be submitted.

This would be best achieved by ensuring that all information relating to monitoring that had been removed from the In Principle Monitoring Plan (IPMP) and placed into the SIP document (or CSIMP) is moved back to be included in the IPMP.

## **2. Approach to Securing Compensation for European Sites Documents**

Natural England welcomes the provision of these documents. However, as advised in our e-mail and written response to the ornithological compensation measures document (Ref: NE;11.D10.C) both provided on 25 February 2020, Natural England does not consider it appropriate to restrict the potential compensation to these options at this time. Therefore, we would recommend that alternative draft conditions are produced which allow for a range of compensatory measures. This would allow the SoS to consider the appropriateness of the range of compensatory measures submitted. As currently drafted the schedule is restrictive to those measures while it could be drafted to allow more flexibility.

As written, within the schedule each compensation strategy must be secured to be approved prior to certain specific works. However, firstly there is no indication given as to when these plans must be provided and this could lead to plans being produced late and risk delays. Additionally, it is Natural England's opinion that compensation measures should be in place prior to the impact or as soon after the impact as possible and we feel this is accepted practice. Therefore, we consider that it should be secured through condition within Schedule 17 that all three compensation plans will be provided and must be approved prior to commencement of any offshore works. Natural England would support the recommendations of the MMO in determining an appropriate timescale but note that an appropriate timescale should allow for sufficient time to review the proposals, discuss any changes and secure approval and should minimise the risk of delays to construction.

Natural England notes that monitoring is only considered for the FFC SPA Kittiwake compensation strategy. Firstly the condition proposed does not provide an appropriate timeframe for the submission and approval of the monitoring proposals. Natural England would support the MMO that the condition secures the plans will be submitted at the same time as the compensation strategy is submitted, i.e. 6 months prior to commencement of offshore works. Secondly, Natural England considers that similar monitoring requirements should be secured for the other compensation schemes including benthic to ensure that they are functioning appropriately. Please also note that further site management measures may also need to be secured to protect particular features against damaging activities.

Natural England notes that on the FFC SPA and HHW SAC compensation strategy requires consultation with the MMO and the relevant statutory nature conservation body. This is appropriate for the HHW SAC, however, as RSPB manage the breeding site and conduct monitoring of the FFC SPA kittiwake colony we would advise that they should also be named as consultees on this scheme. With regards to the Alde Ore Estuary SPA lesser black-backed gull (LBBG) compensation strategy, consultation is only proposed with the SNCB. However, as this would be an onshore scheme, consultation should be undertaken with the relevant Local Planning Authority. Furthermore, Natural England would recommend that consultation with the relevant land owners (National Trust and RSPB)

should be secured as well as their support of the strategy will be of considerable importance to its success.

It is noted that the Alde-Ore Estuary SPA and HHW SAC compensation strategies have a condition requiring them to be implemented as approved, whilst the FFC SPA strategy has a condition requiring the monitoring be implemented as approved and the kittiwake platforms be constructed as approved. We advise that all three strategies should be implemented as approved. There is a potential that following monitoring, or changes to development plans, the strategy may require some alteration and therefore Natural England would recommend that the conditions allow for submission and re-approval of updated strategies.

If you have any questions relating to this letter please contact me using the details below.

The advice provided in this letter has been through Natural England's Quality Assurance process.

The advice provided within the Discretionary Advice Service is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely,

A black rectangular redaction box covering the signature of Jessica Taylor.

Jessica Taylor  
E-mail: [Jessica.Taylor@naturalengland.org.uk](mailto:Jessica.Taylor@naturalengland.org.uk)  
Telephone: 0208 225 8234