

Date: 19 November 2021
Our ref: Case ref 10430/Consultation ref 374820



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

BY EMAIL ONLY

Dear Gareth,

**Norfolk Vanguard – Consultation on Applicant’s response to the Secretary of State’s
Additional Information Request**

Natural England’s remit is to ensure sustainable stewardship of the land and sea so that people and nature can thrive. We are working to achieve a healthy and biodiverse marine environment which can enable a truly sustainable UK offshore wind sector, to support the achievement of ‘net zero’ and address the climate change emergency. This is underpinned by our vision for thriving marine and coastal nature alongside low impact offshore wind energy, tackling both climate and biodiversity emergencies as set out in our [Approach to Offshore Wind](#). Aligned to the four aims of our Approach, we use our expertise to help facilitate offshore windfarms that are sensitively located and constructed, whilst protecting marine ecosystems from proposals with significant environmental impacts through our statutory advice. This, coupled with mechanisms for nature enhancement, will allow marine nature recovery and help mitigate the negative impacts of climate change.

Whilst the Secretary of States letter dated 11th October 2021 requested interested parties comments on the Vattenfall Norfolk Vanguard documents uploaded on the Planning Inspectorate website on 11th and 26th August 2021, we thank BEIS for granting the extension to the response deadline, as this has allowed Natural England to provide advice on all of the Applicant’s submissions for Norfolk Boreas, including the final responses submitted on 21st October 2021. As the ‘sister’ project to Norfolk Vanguard, many of the impacts and thus compensation measures are same for Norfolk Vanguard as for Norfolk Boreas and therefore the extra consultation time has enabled us to provide

comprehensive and up-to-date advice which is relevant to both projects through this consultation response.

Natural England provides the following statutory advice to the SoS and BEIS for consideration. This advice considers the updated collision risk figures proposed by the Norfolk Boreas project in the context of Norfolk Vanguard, and further detail on compensatory measures selected for the SAC and SPA features Natural England considers to be impacted by development.

Following a short summary of our advice on the additional information, our letter sets out the advice provided by Natural England to the Planning Inspectorate during the post Examination consultations for Norfolk Vanguard, which completed on 27th April 2020. It then provides updates or additions to that advice in the light of the information provided to the SoS for the re-determination of the Norfolk Vanguard in August 2021 and those provided by Norfolk Boreas up to and including 21st October 2021. The enclosed Annexes provide more detailed comments on the information submitted, as set out in Table 1 at the end of this letter.

Unless specifically considered as part of this response, all other advice provided by Natural England during the Norfolk Vanguard Examination and/or during the post-Examination Secretary of State consultation that concluded in April 2020 remains unchanged.

1. Summary of Natural England's Advice on the Additional Information

Natural England continues to advise that adverse effects cannot be ruled out on a number of SAC and SPA qualifying features as a result of the Vanguard proposal. Whilst we consider that there is merit in the compensatory measures brought forward by the Applicant to address these impacts, there is still insufficient detail regarding several important aspects of the measures. In some instances, it has not been satisfactorily demonstrated that the measures are deliverable. Consequently, we consider that the Secretary of State has not been afforded sufficient confidence that the measures can be secured. We are also concerned that the DCO schedule as drafted will not result in compensatory measures being in place in appropriate timescales with respect to the impacts arising.

2. Haisborough Hammond and Winterton Special Area of Conservation (SAC)

2.1 Background

One Special Area of Conservation (SAC) with Annex I Sandbanks (which are slightly covered by sea water all the time) and Annex I Reefs as features was identified in the SoS's request for further information: Haisborough Hammond and Winterton (HHW) SAC. This site is located off the north

east coast of Norfolk. During the post examination consultation of the Vanguard proposal, Natural England identified significant concerns regarding the scale of impact – both temporal and spatial – from export cable installation and the deposition of cable protection on the SAC.

2.2 Natural England’s Position on SAC Impacts as of 27th April 2020

Upon the close of the Boreas examination Natural England advised that sufficient baseline evidence had been provided to inform an assessment of the impacts to Annex I Sandbanks and Reefs feature of Haisborough Hammond and Winterton (HHW) SAC, however, we disagreed with the conclusions of the Applicants’ Report to Inform the Appropriate Assessment, and advised that an AEOI could not be ruled out, for the following reasons:

2.2.1 Cable protection

In Natural England’s view, even with the proposed reduction in the number of export cables from six to two by using a High Voltage Directional Current (HVDC), the remaining proposed levels of cable protection would constitute a lasting and potentially irreversible impact on both designated site features, thereby hindering the conservation objectives of the site. Annex I Sandbanks and Reefs features within the site are both in unfavourable condition. Consequently, Natural England could not be certain that cable protection will not adversely affect the integrity of the site.

2.2.2 Sandwave levelling

Although sandwave levelling had been proposed as a means of reducing the potential requirement for cable protection, Natural England highlighted that there was insufficient evidence to demonstrate that full recovery of the Sandbank system is achievable and within the affected Annex I Sandbank systems. This is because there is insufficient certainty that there will not be a need for cable protection over the lifetime of the project.

2.2.3 Sediment disposal

Natural England was content that the Applicant had demonstrated that there are suitable disposal locations for sandwave levelling operations, that would both retain the sediment within the Sandbank system to provide the best chance for recovery and avoid impacts to the Annex 1 Reef feature. However, the issue of changes to sediment composition at the disposal locations had not been resolved (i.e. the 95% similar sediment grain size condition).

2.2.4 Micro-Siting

Natural England could not be certain that avoidance of Annex I Reef habitats through micro-siting the cable was achievable, and therefore that it wouldn’t hinder the management measures put in place to restore Annex I Reef from fisheries pressures, particularly if cable protection was needed.

2.2.5 Overall Conclusions

Natural England recognises the additional steps taken by the Applicant to avoid, reduce and mitigate the impacts including reducing cable protection along the cable length within the SAC, no jack up barges within the SAC and adoption of the reburial hierarchy. However, they do not completely remove the need for cable protection over the lifetime of the project and therefore, the additional evidence is not sufficient to remove all reasonable scientific doubt as to the absence of adverse effects on the integrity on the protected Annex I Sandbanks and Reefs as a result of the installation of cable protection over the lifetime of the project. Please see Annex 8 for further feedback on the Secretary of State's requests in the 11 October 2021 letter.

2.3 Compensatory measures proposed in the post-Examination phase

Under Article 6(4) of the Habitats Directive, the project may be permitted if the Secretary of State is satisfied that, there being no alternative solutions, the plan or project must be carried out for imperative reasons of overriding public interest.

Given that the key issue for Annex I Sandbanks and Reefs at HHW SAC, based on our understanding of site condition, is the lasting change of habitat, Natural England advised that measures focusing on ensuring no overall loss of designated features within the SAC are taken forward. Ultimately, the project decided to propose an extension to the boundary of HHW SAC to incorporate an area where there is suitable confidence, based on best available evidence, in the presence of Annex I Sandbanks and Reefs. The Applicant is proposing a 10:1 compensation ratio to allow for any uncertainties in deliverability.

Natural England considered that there was sufficient evidence to demonstrate that Annex I Sandbanks and Reefs were present in the area proposed for the SAC extension, and that an extension to the HHW SAC site boundary would be the most environmentally beneficial measure to ensure the coherence of the Natura 2000 network. Please see Annex I for the justification.

2.4 Implications of the Additional Information for NE's Position on SAC Impacts

Natural England's advice remains that an adverse effect on integrity cannot be ruled out from the placement of cable protection within Haisborough Hammond and Winterton SAC.

Natural England welcomes that in the Norfolk Boreas letter to BEIS dated 21st October 2021, the Applicant has re-affirmed its commitment to the decommissioning of cable protection at the end of the project lifetime. This is in line with the exemplar efforts the Applicant has gone to in minimising the impacts of the project.

We advise that the requirement for removal of cable protection at the end of the project's lifetime is secured in the DCO/dML for this project (with the exception of crossing points). At present this is not the case. Please see Annex 4 for our advice on this matter.

As advised to the SoS on 27 April 2020, the mitigation hierarchy should be adopted i.e. avoid, reduce, mitigate and where that is not possible then compensate, an approach that which we consider the Applicant has followed. Nevertheless, these efforts have not removed the potential need for cable protection within the HHW SAC over the lifetime of the project and therefore there remains reasonable scientific doubt as to the absence of adverse effects on the integrity of the HHW SAC.

Natural England's advice remains that an adverse effect on integrity cannot be ruled out beyond reasonable scientific doubt from sandwave clearance/sweeping within Haisborough Hammond and Winterton SAC.

Natural England notes that the SoS on 9th July 2021 requested that the Norfolk Boreas project provide further evidence beyond that submitted into examination on the recovery of Annex I sandbanks post sandwave levelling/sweeping. Natural England welcomes this because we believe that there is likely to have been further bathymetry and geophysical surveys undertaken at the Race Bank OWF sandwave levelling locations since 2018 which could potentially address our uncertainties in relation to whether full recovery of Annex I sandbanks is achievable from sandwave sweeping. Early indications of recovery suggest that this is possible, but without further data we still have reasonable scientific doubt and therefore our advice remains unchanged.

However, Natural England has considered the further evidence provided by the Norfolk Vanguard on 26th August 2021 in support of their conclusion that there will be no Adverse Effect on Integrity of Haisborough Hammond and Winterton SAC Annex I Sandbanks from sandwave levelling/sweeping. We consider that the Larsen et al. 2019 paper provides useful evidence from the Race Bank Offshore Windfarm (OWF) to indicate that complete natural regeneration of different types of sandbanks will be achieved within 3 years after levelling. Natural England highlights that there remains a gap in the evidence to demonstrate that this has fully occurred, due to the lack of further monitoring of the recovery trajectory at Race Bank OWF after the 303 days of monitoring.

Even though there remains some uncertainty as to the exact timeframes for sandbank regeneration, Natural England's experience suggests that complete regeneration is likely to occur on dynamic sandbank systems. Natural England highlights that there is a lack of evidence to suggest that this would be the case in more static sandbank systems. Therefore, we believe that there is a low risk of adverse effects arising due to the proposed sandwave levelling/sweeping by the Norfolk Boreas

and/or Norfolk Vanguard projects. This would not be the case for potential alternative options i.e. should additional external cable protection be progressed in the absence of sandwave levelling/sweeping. Please note that Natural England's position in relation to use of external cable protection remains unchanged.

Given the need for evidence to improve our understanding of the timescales for recovery and address this outstanding uncertainty, Natural England advises that monitoring similar in scope to the Larsen et al. 2019 surveys is undertaken of all areas where sandwave sweeping/levelling occurs with HHW SAC and is secured in the Vanguard In Principle Monitoring Plan. The initial survey of the impacts should be repeated until such time that the sandbanks are considered by the regulator (in consultation with Natural England) to have satisfactorily regenerated and are providing the same structure and function as to the surrounding sandbanks.

2.5 Implications of the Additional Information for NE's Advice on SAC Compensatory Measures

i) Securing compensation

Natural England recognises that the Applicant has committed to 'adopting' Natural England's checklist to appraise the merits of particular compensation packages (as set out in Annex 5 to this letter). However, Natural England notes that this list was compiled with a view to informing submission of appropriately well-developed compensatory measures into the Examination (or as is the case with current projects, prior to determination), rather than to inform the development of compensatory measures in the post-consent period. It is Natural England's view that sufficient clarity on all these matters is needed prior to determination.

ii) Compensation requirements

Given the SoS decision for Hornsea Project Three in relation to lasting SAC impacts from cable protection over the lifetime of the project, we anticipate a similar requirement for Norfolk Vanguard. We also note that there is equal uncertainty in both projects in relation to the need for and scale of actual cable protection post installation. Therefore, we do not agree that Norfolk Vanguard is an exceptional case in this regard, and accordingly advise that it is not appropriate to retrospectively apply compensation measures after the installation of the export cable and should it be needed placement of cable protection i.e. to have a deliberate strategy of delaying compensation until after damage has arisen.

iii) Compensation constraints

Natural England notes that that several interested parties have identified challenges and/or

constraints in relation to the delivery of some benthic compensation measures within this SAC and the wider MPA network. Therefore, Natural England has focused its advice solely on the ecological merits of the different proposals brought forward. In future, Natural England would be pleased to join discussions between the relevant regulators/competent authorities and interested parties to explore and resolve potential blockers to the delivery of relevant compensation measures, thereby facilitating the prompt delivery of renewable energy.

iv) Compensation ratios

Natural England advises that where there are uncertainties, a more precautionary approach should be adopted i.e. a greater than 1:1 ratio. For example: whilst we note that the proposal to extend the HHW SAC is likely to incur time lags between installation and the delivery of appropriate management in the extension area, this is likely to be addressed through the proposed 10:1 ratio.

v) Extension of SAC

As set out above and in more detail in Annex I, Natural England agrees with the Applicant that extending this particular SAC, along with removal of redundant infrastructure (Strand 1), are the compensatory measures most likely to achieve the required environmental outcomes. Natural England considers that there is sufficiently robust environmental data to make a case for extending the SAC, though we do recognise that site extension is not a straightforward process.

vi) Removal of out of service cables/Anthropogenic structures [Strand 1]

Natural England advises that anthropogenic infrastructure is the one of the primary causes of the site being in unfavourable condition. Therefore, we believe that the removal of surface laid infrastructure that wouldn't otherwise be removed has the potential to offset the impacts of the project. We acknowledge that delivery may not be achievable prior to impacts occurring, but if it can be demonstrated that the compensation is fully secured, is feasible and effective, and that there would be an overall ecological benefit to the SAC over the lifetime of the project (and where appropriate beyond forming a lasting legacy), Natural England would remain supportive of this proposal. Please see Annex I for Natural England's detailed advice on this matter.

We note that this advice has been misinterpreted by the Norfolk Boreas applicant in their 21st October 2021 submissions, and presented as evidence that a 'wait-and-see' approach is broadly in line with Natural England advice. This is not the case. Our advice is that for compensatory measures to be implemented subsequent to works starting, the measures proposed at the point of determination would need to be: secured; give confidence that they would be feasible and effective; and demonstrate that there would be ecological benefits above and beyond both the impacts and the delay in delivery. We do not consider that any of these important factors are addressed by the Boreas/Vanguard compensation proposals, and therefore we do not consider that such an approach

can be said to compensate for impacts on the HHW SAC.

From the Norfolk Boreas submission we understand that the feasibility of removing decommissioned Oil and Gas (O&G) pipelines within the site has been put in doubt due to; timeframes, liability concerns and O&G companies indicating their existing commitments to remove any surface laid pipes. However, Natural England is not aware of any commitments to remove surface-laid infrastructure being secured by the O&G companies, and therefore there remains considerable uncertainty given the legislative requirements that removal as opposed to other decommissioning measures e.g. 'making safe' will actually occur.

In addition, Natural England notes there may also be some confusion between stakeholders as to what is meant by 'surface laid'. Natural England considers that any infrastructure that is located on top of/protruding from the seabed, whether or not it has external protection, to be surface laid. However, it is likely that O&G companies only consider exposed pipelines with no protection to be surface laid. It would be helpful going forwards if this could be clarified in discussions with O&G stakeholders to better understand any potential 'additionality' the offshore windfarm industry would bring from removing decommissioned pipelines.

Natural England recommends that BEIS liaise with OPRED in order to fully understand the viability or otherwise of this compensatory measure.

vii) Removal of marine debris [Strand 2] and awareness campaign [Strand 3]

Natural England advises that we do not consider that the removal of marine litter and an awareness campaign will provide compensatory measures under the Habitats Regulations for the predicted impacts of Norfolk Boreas on HHW SAC.

Whilst marine litter removal is undoubtedly useful in terms of requirements under the Marine Strategy Framework Directive, the presence of marine litter is not a factor in terms of the conservation objective status for the SACs. In addition, we are concerned that litter removal activities could potentially further impact the conservation objectives of the site and move it further away from favourable condition.

For Hornsea Project Three's compensation proposals, on which the Applicant has sought to rely on as a precedent, NE has advised that we do not consider the removal of marine debris and/or litter provides compensation for lasting/permanent habitat loss of Annex 1 habitats from cable protection within SACs. This was our written advice to the Secretary of State on this matter in April 2020 and we have re-iterated this in subsequent discussions with regulators and developers. We do not consider this a valid compensatory measure due to the following reasons:

- we do not consider marine debris and/or litter to be a factor hindering the conservation objectives of the sites;
- we do not consider that a single removal campaign would compensate for habitat loss over the lifetime of the project;
- it is unclear how it could be demonstrated that the removal of litter is compensating for habitat loss; and,
- it is unclear how an awareness campaign with key stakeholders will effectively compensate for habitat loss.

viii) Combination of Strands 1-3

Natural advises that if Strands 2 and 3 are presented to the Secretary of State in isolation or together, we do not consider that appropriate compensatory measures would have been provided for HHW SAC. But if either were to be combined with Strand 1 then believe that the impacts are mostly likely to be offset, with the potential for enhancement and Net Gain.

3. Impacts on Special Protection Areas (SPAs)

3.1. Background

A number of protected sites and species were identified by Natural England as being at risk of significant impact from this development alone or in-combination, including kittiwake, gannet, guillemot and razorbill from the Flamborough and Filey Coast (FFC) Special Protection Area (SPA) and lesser black-backed gull from the Alde-Ore Estuary SPA.

3.2. Natural England's Position on SPA Impacts as of 27th April 2020

3.2.1 Flamborough and Filey Coast SPA

Natural England advised that it could not be certain that there would not be Adverse Effects on the Integrity (AEoI) of FFC SPA through impacts to the features of kittiwake, gannet, guillemot and razorbill when considered in-combination with other plans and/or projects. For the latter three species, this lack of certainty arose when the Hornsea Project 3 was included in the in-combination assessment.

Regarding kittiwake at FFC SPA, Natural England highlighted that the in-combination total of collision mortality across consented plans/projects had already exceeded levels which were considered to be an AEoI, and that any additional mortality arising from these proposals would therefore be considered adverse.

3.2.2 Lesser black-backed gull at Alde-Ore Estuary SPA

At the close of the examination, Natural England advised that it could not be certain that there would be no Adverse Effects on the Integrity (AEol) of Alde-Ore Estuary SPA through impacts to lesser black-backed gull, when considered in-combination with other plans and/or projects.

Natural England highlighted that the in-combination total of collision mortality across consented plans/projects had already exceeded levels which were considered to be an AEol for this feature of the SPA at the end of the Hornsea Project 3 examination, and that any additional mortality arising from these proposals would therefore be considered adverse.

3.2.3 Mitigation Proposed during the Examination

The Applicant committed to a number of mitigation measures that Natural England welcomed, including further reduction in turbine numbers, and further raising of minimum draught height of turbines. Natural England considered that the Applicant has made significant efforts to reduce the impacts of their proposal and demonstrated due consideration to ensure that all proposed mitigation measures are feasible. These reductions will result in a proportional reduction in the impact to birds.

Natural England consider that the Applicant has taken all reasonable steps to avoid, reduce and mitigate the impacts of the proposed development on both kittiwakes at Flamborough and Filey Coast SPA and lesser black-backed gull at Alde-Ore Estuary SPA. However, it should be noted that the measures are unlikely to fully exclude collision impact, so in combination considerations remain relevant. Because of this, Natural England's advice on adverse effects on site integrity remain unchanged.

3.3 Compensatory measures

3.3.1 Kittiwake at Flamborough and Filey Coast SPA

The project discussed a number of compensatory measures with Natural England. Given that the key issue for Kittiwake at FFC SPA, based on our understanding of site condition, is decreased productivity, Natural England were keen that measures focusing on increasing productivity, such as prey availability, were taken forward. However, the project decided that construction of artificial nests in the southern North Sea/south-east England, but located outside of the FFC SPA kittiwake population, would provide the most confidence in deliverability.

Though this wasn't Natural England's preferred option, we agreed 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 from which the FFC SPA population

draws its recruits. Whilst this measure would not directly benefit the FFC SPA population, this would potentially ensure the coherence of the Natura 2000 network (N2K), particularly if considered as a phased approach that also includes more medium-term measures on prey availability.

However, Natural England advised that more detail is required regarding the size and productivity of any new colony, the location and type of any new structure, the size of a new structure, how the project intends to quantify the success of the measure, and the distance of the measure from the FFC SPA population. It was also noted that depending on the chosen location there may also be an increased collision risk that would need to be taken account of when determining the productivity of any new colony.

3.3.2 Lesser black-backed gull at Alde-Ore Estuary SPA

The Applicant discussed a number of compensatory measures with Natural England. Given that the key issue for lesser black-backed gull at Alde-Ore Estuary SPA, based on our understanding of site condition, is decreased productivity, Natural England were keen that measures focusing on increasing productivity, such as predator control, were taken forward.

During this Examination phase, the project concluded that funding a coordinator, whose role would be to facilitate the organisation of a stakeholder working group tasked with overseeing a review of the population's health, factors which have contributed to the decline, and proposals for conservation measures, would be their preferred compensation option. Depending on the outcome of this review, a trial might be undertaken to test options, before a final measure (or suite of measures) was taken forward for implementation, which could include predator control at nesting sites.

Natural England's view during the Examination was that whilst the funding of a project coordinator and scoping study is helpful, there should be a commitment to delivering measures on the ground that would offset the predicted collision risk mortality. Natural England also highlighted that suitable site management measures should be already happening within the designated site, and that any compensatory measures should be additional to those either in place or required to be in place. This was also the case for the S106 associated with the impacts of the Galloper OWF.

Therefore, whilst Natural England recognised the benefit of the Applicant's proposal in helping to identify possible compensation measures, we did not feel it would achieve the desired outcomes without further specification of how Norfolk Boreas will compensate for reduced productivity of the LBBG population as a result of their project. Therefore, Natural England advised that further detail on this measure needed to be provided, and confirmation given that the delivery of the measure can be secured.

3.4. Implications of the Additional Information for NE's Position on SPA Impacts

Since April 2020, the impacts of the Hornsea Project 3 windfarm have been clarified through discussions between the developer, and updated figures provided by Hornsea Project 3. In addition, the PEIR for the Dudgeon and Sheringham Extensions projects has been consulted on, and therefore requires consideration in an in-combination assessment. These have resulted in revisions to the cumulative and in-combination totals for FFC SPA and Alde-Ore Estuary SPA.

Natural England is in broad agreement with the cumulative and in-combination totals presented in the Additional Information submitted by Norfolk Boreas on 21st October 2021. Our advice regarding EIA-level impacts remains unchanged. However, we can update our previous advice on HRA matters as follows:

3.4.1 Flamborough & Filey Coast SPA

3.4.1.1 Kittiwake – Natural England's advice remains that we are unable to rule out an AEOI, either excluding or including Hornsea Project 4 and Dudgeon and Sheringham Extensions (i.e. those projects currently at the pre-Examination/PEIR stages). Natural England considers that the project makes a significant contribution to the FFC SPA in-combination total (21 out of 358¹ annual collision mortalities, or 5.9% of that total). We also advise that this contribution should be appraised in tandem with those of other submitted but not determined projects, rather than discretely.

3.4.1.2 Gannet – Natural England can now rule out an AEOI in-combination for all projects up to and including Hornsea 3 (i.e. all submitted projects). However, we are not in a position to rule out an AEOI in-combination when Hornsea Project 4 and Dudgeon & Sheringham Extensions are included. This is due to the uncertainty regarding the impacts for these projects due to them being at the pre-Examination and PEIR stages respectively.

3.4.1.3 Guillemot and razorbill - Natural England can now rule out an AEOI in-combination for all projects up to and including Hornsea Project 3 (i.e. all submitted projects). However, we are not in a position to rule out an AEOI in-combination when Hornsea Project 4 and Dudgeon and Sheringham Extensions are included, due to the uncertainty regarding the impacts for these pre-submission projects, and with respect to the significant numbers of guillemot and razorbill encountered in the Hornsea 4 array area.

¹ Total for all projects up to and including Hornsea 3, but excluding Hornsea 4 and Dudgeon & Sheringham extension, using a 98.9% avoidance rate in the basic Band model.

3.4.2 Alde-Ore Estuary SPA

3.4.2.1 Lesser black-backed gull – Natural England remains unable to rule out an AEol, irrespective of either excluding or including Hornsea Project 4 and Dudgeon and Sheringham Extensions (noting that no collisions have been apportioned from these three projects). Natural England considers that the Project makes a significant contribution to the in-combination total (3 out of 54 annual collision mortalities², or 5%). We also advise that this contribution should be appraised in tandem with those of other submitted but not determined projects, rather than discretely.

3.5 Implications of the Additional Information for NE’s Advice on SPA Compensatory Measures

3.5.1 Flamborough & Filey Coast SPA compensation

Please see Annex 5 of this letter for an overview of Natural England’s appraisal of the SPA compensatory measures:

2.5.1.1 Prey availability – as noted during the Examination, Natural England considers that improving prey availability for FFC SPA kittiwake (and the other qualifying features) has significant potential as a compensatory measure. In particular, our view remains that fisheries management has the potential to deliver significant benefits for FFC SPA kittiwakes and whilst there is currently no mechanism available for developers to adopt this as a compensatory measure, such a mechanism may appear in future. Therefore, we welcome the commitment by the Project that if initiatives are developed by the relevant authorities in the future with a view to enabling fishery management or to enabling fishery quotas to be purchased as means to deliver strategic compensation then Vattenfall would be willing to participate in their delivery, on the basis that these were within acceptable timeframes for the Project.

We also consider that prey availability could form the basis of adaptive management measures for the compensatory measure in the longer term, the potential use of which we recommend should be incorporated into the DCO/dML conditions.

2.5.1.2 Kittiwake – Natural England recognises that some progress has been made regarding the proposed measures for this species post-Examination. The measure proposed for Norfolk Vanguard and Norfolk Boreas is to provide artificial structures providing additional nesting sites for kittiwake.

² Using a 99.5% avoidance rate in the basic Band model

The proposed compensation pathway appears to be to provide additional adult kittiwake into the wider biogeographic population from which the FFC SPA draws its recruits. Given the inability to predict the eventual nesting location of adults produced by the artificial structure, there is therefore inevitable uncertainty regarding the extent to which the proposal will directly benefit the FFC SPA. It may be more appropriate to consider this as a compensatory measure that derives benefits for the MPA network principally via increasing the robustness of the wider UK kittiwake population. In such circumstances it seems appropriate for the measure to deliver benefits at a scale greater than the impacts felt at FFC SPA.

The Project proposes to compensate for the upper 95% confidence limit value for collision impacts, which Natural England supports.

The submissions by the Norfolk Boreas applicant to BEIS on 21st October 2021 indicate that negotiations with ABP at Port of Lowestoft are proceeding, with potential sites within the Port identified, and discussions regarding Heads of Terms regarding a lease of one of those sites. This is welcome progress. Despite this progress, Natural England consider that some important uncertainties remain:

Implementation

- Specific location/s of the artificial structures within the Port of Lowestoft
- Specific design of the artificial structure
- Implications of Port of Lowestoft proposals for delivery of the measures

Quantification

- Method and values used to calculate the number of nests required, particularly regarding the predicted productivity of the artificial structure.
- Extent to which the proposed compensatory measures will provide 'new' recruits to the breeding population that otherwise would not have bred in that year, and/ or the provision of superior nesting locations than otherwise might have been available, leading to improved productivity.
- Likely rate of structure colonisation, and likely proportion of the total number of nest sites on the structure that will be occupied.
- Extent to which the Lowestoft area can support the totality of the aspirations of developers regarding artificial nesting structures.

The Project proposes that the details of the location and design be agreed in the post-consent period. However, Natural England considers that these details are an important part of providing the Secretary of State with sufficient confidence that the measures can be secured and will be

successful. Therefore, our position is that such information should be provided prior to determination.

Natural England is particularly concerned that the Project's DCO/dML only requires them to submit a compensation plan to the Secretary of State 18 months prior to the operation of any wind turbine. This means that there is no requirement for the compensation to be in place or functional prior to impact. Natural England considers this significantly reduces the confidence that the measures will be implemented to the timescales set out. We highlight that the Hornsea Project 3 DCO/dML compensation schedule for kittiwake required the artificial structures to be in place four full breeding seasons prior to operation, providing the required certainty that the measures would be in place at an appropriate point in time.

In contrast, despite the additional information indicating that the artificial structures will be in place four breeding seasons in advance of first generation, the conditions as phrased for Norfolk Boreas do not secure this, and so do not provide any certainty at all regarding when the compensatory measures would be in place, and therefore at what point the counteracting benefits of the measure would arise. The evidence provided by the Project does not in our view support the position that the 'mortality debt' that would arise from the compensatory measures being in place following operation could be promptly repaid.

Natural England had previously advised that the use of a single structure risked putting the Project's 'eggs in one basket'. We therefore welcome the indications in the Norfolk Boreas submissions of 21st October 2021 that commit to the delivery of more than one structure would usefully spread the risk of one structure failing to attract birds. Natural England consider this risk would be further controlled by installing structures at more than one location in the Port.

We note and welcome the commitment from Norfolk Boreas to collaborate both with the Norfolk Vanguard project and with the EA1N/EA2 developers. This does inevitably raise the question of how many nest spaces would be required to service the requirements of all four projects.

2.5.1.2 Gannet – no information on compensatory measures for this species were brought forward during the Examination, nor were sought by the Secretary of State in the request for additional information.

2.5.1.3 Guillemot and razorbill – Natural England can see possible merit in the proposed compensatory measure for the guillemot and razorbill features of the SPA, but consider the proposals lack sufficient detail to have confidence in their relevance or their feasibility. The proposed measure is to eradicate rats from an unspecified island drawn from a list of UK seabird islands prioritized for invasive mammal eradications. The compensation pathway is to increase productivity at the selected

island to provide additional recruits into the wider populations of guillemot and razorbill to offset the losses from the FFC SPA population. As all the priority islands are remote from FFC SPA, the measure is unlikely to derive significant benefit for FFC SPA, and is best considered as a compensatory measure that derives benefits for the MPA network by increasing the robustness of the wider UK guillemot and razorbill populations. In such circumstances it seems reasonable for the measure to deliver benefits at a scale greater than the impacts felt at FFC SPA.

In our view considerable uncertainties remain regarding this proposed measure, not least:

- Evidence that mammalian predators are impacting large auk nesting success at the candidate islands, as opposed to impacting on other more sensitive seabirds
- Specific island location for implementation of the measure
- Evidence of landowner and community support for an eradication programme at a specific island
- Quantification of specific benefits and scale compared to impacts
- Predicted timescales for implementation of measures

Please see our comments above regarding the DCO/dML conditions and the lack of security regarding timely implementation of compensation measures. With this measure, we are concerned that post-consent exploration may reveal that there are no islands where rat eradication is relevant, feasible or have landowner/community support for an eradication: in which case it is unclear how compensatory measures would be progressed.

2.5.2 Alde-Ore Estuary SPA compensation

2.5.2.1 Lesser Black-backed Gull – Natural England broadly supports the principle of using New Zealand-style predator exclusion fencing to create safe nesting conditions for nesting lesser black-backed gull. The exclusion of mammalian predators such as foxes from the fenced area is likely to result in increased nesting success. The proposed compensation pathway is to produce sufficient fledglings to reach adulthood and replace those lost from the SPA due to collision, which given that some lesser black-backed gulls will return to breed at the site from which they fledged, is likely to directly benefit the impacted SPA. We consider that this measure has potential merit either within or on land adjacent to the SPA, provided that a suitable site can be identified. The Project proposes to compensate for the upper confidence limit value for collision impacts, which Natural England supports, and to ‘over-compensate’ beyond that value to address uncertainties regarding the effectiveness of the measures.

We note from the latest submission from Norfolk Boreas (Royal Haskoning DHV 2021), which is also relevant to Norfolk Vanguard, that a specific landowner and land parcel have been identified (Cobra

Mist Ltd.) and Heads of Terms are under negotiation, which is welcome progress. The above constraints do still apply in this location and the design of the measures, which has yet to be undertaken, would need to ensure the compensation did not inadvertently impact upon these receptors. In particular, we note the presence of SAC/SSSI habitats within parts of this land parcel. We also highlight that the associated Unit 16 of the SSSI is currently in unfavourable condition, which would need to be remedied through an agreed site management plan, before this area would be suitable for the proposed compensatory measures. Given site management measures would need to be implemented and delivered beforehand, the current condition of the Unit has potential implications for the speed at which the compensatory measures can be implemented. In addition, it will need to be demonstrated that the implementation of compensation measures wouldn't affect water level management across the wider Orfordness.

In addition, as with kittiwake above, we are also concerned that the Project's DCO/dML only requires them to submit a compensation plan to the Secretary of State 18 months prior to the operation of any wind turbine. This means that there is no requirement for the compensation to be in place or functional prior to impact. Natural England considers this further reduces the confidence that the measures will be implemented in a timely fashion and fails to provide the requisite certainty regarding when the compensatory measures would be in place. The evidence provided by the Project gives some confidence that the 'mortality debt' that would arise from the compensatory measures being in place following operation could be repaid in a reasonable timescale, but only in a scenario where the predator fencing was installed before the breeding season prior to the operation of any turbine.

As for FFC SPA kittiwake above, we welcome the commitment to collaborate with the EA1N/EA2 developers and Norfolk Boreas. This does inevitably raise the question of how large a predator exclusion compound would be required to service the requirements of all four projects (or indeed accommodate future projects requiring compensation).

If there are any aspects of our advice that require clarification, please do not hesitate to get in touch.

Yours sincerely

Martin Kerby
Offshore Wind Principal Adviser
Telephone: [REDACTED]
[REDACTED] [@naturalengland.org.uk](mailto:[REDACTED]@naturalengland.org.uk)

Table 1 – List of Annexes

Document	Response Topic
----------	----------------

Annex 1	Natural England's advice on the Haisborough, Hammond and Winterton (HHW) Special Area of Conservation (SAC) compensation proposals
Annex 2	Natural England's advice on the Flamborough and Filey Coast Special Protection Area (SPA) in principle compensation measures
Annex 3	Natural England's advice on the Alde- Ore Estuary (SPA) in principle compensation measures
Annex 4	Natural England Advice on Norfolk Boreas Proposed DCO Conditions Regarding Compensatory Measures
Annex 5	Natural England's overview appraisal of in-principle compensatory measures
Annex 6	Natural England advice on Flamborough and Filey Coast (FFC) SPA PVAs and in-combination assessments
Annex 7	Natural England Alde-Ore Estuary (AOE) SPA PVA and in-combination assessments
Annex 8	Natural England's advice on All other matters raised in Secretary of State letter dated 11 th October 2021