

Date: 20 August 2021
Our ref: Case ref 10570/Consultation ref 351731



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

BY EMAIL ONLY

Dear Gareth,

**Norfolk Boreas – 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.

On 28th April 2021 the Secretary of State (SoS) wrote to Vattenfall to request additional information ‘in consultation with Natural England’ on matters pertaining to the Habitats Regulations derogations process for their Norfolk Boreas Offshore windfarm (‘the Project’). Natural England provided advice to the Project during the consultation period, up to 25th June 2021.

Having reviewed the documents submitted by the Project on 25th June 2021, 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 Project, 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 Examination of the Norfolk Boreas application, which completed on 10th October 2020. It then provides updates or additions to that advice in the light of the information provided to the SoS on 25th June 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 Boreas Examination 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 Boreas 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 Examination of the Boreas proposal, Natural England has 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 at close of Examination

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, 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

The additional steps taken by the Applicant to avoid, reduce and mitigate the impacts including: reducing cable protection to 5% along the cable length within the SAC, no jack up barrages within the SAC, adoption of the reburial hierarchy, no cable protection in areas to be managed as reef and only using cable protection which can be decommissioned are welcomed and considerably reduce the risk of an adverse effect on integrity. This is because they provide greater confidence that cable

protection will not be needed, and that the potential consequential impacts from sandwave levelling impacts could be minimised or avoided. 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 installation of cable protection over the lifetime of the project.

2.3 Compensatory measures proposed during the Examination

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, during Examination 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 is disappointed that the Applicant considers the decommissioning of cable protection unnecessary if compensation measures are required. This is especially the case considering the exemplar efforts the Applicant has gone to in minimising the impacts of the project. We would therefore welcome the Applicant reconsidering this position. As advised to the SoS on 27 April 2020 for the Boreas sister protect 'Norfolk Vanguard', the mitigation hierarchy should be adopted i.e. avoid, reduce, mitigate and where that is not possible then compensate.

There was (and still is) agreement between NE and the Applicant during Examination for not

decommissioning cable protection at crossing points. However, at present there is disagreement on Condition 20. Please see Annex 4 for full details. However, given the current significant uncertainties we have in relation to the merits of some of the proposed compensation measures (e.g. marine litter removal) we now advise that the requirement for removal of cable protection at the end of the project's lifetime to be retained as a mitigation measure.

In addition, we note that under Habitat Regulations:

- Article 2 competent authorities including those with DCOs have a duty to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest.
- A 'competent authority' also has a general duty to have regard to the requirements of the Habitats Directive and Wild Birds Directive (see regulation 9(3) of the Conservation of Habitat and Species 2017). So far as lies within their powers, a competent authority in exercising any function in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds.

The NERC Act 2006 sets out the following duties for statutory undertakers:

- Under Section 40 a Statutory Undertaker has a duty to conserve biodiversity.
 - (1) Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity;
 - (2) In complying with subsection (1), a Minister of the Crown, government department or the National Assembly for Wales must in particular have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992; and
 - (3) Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

Therefore, by minimising their impacts as previously proposed, Vattenfall would be fulfilling the first step in delivering their wider duties as well as reducing their compensation requirements.

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 Applicant provides 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 or not 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 our advice remains unchanged.

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 Boreas. 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 Boreas 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 rock 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.

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 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

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 at the close of Examination

3.2.1 Flamborough and Filey Coast SPA

At the close of the Boreas Examination, 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 3 and Hornsea 4 projects were 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 Norfolk Vanguard 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.

Ultimately, the project decided 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 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

Following the Examination, the impacts of the Hornsea 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. 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 PEIR stage). Natural England considers that the project makes a significant contribution to the FFC SPA in-combination total (14 out of 358¹ annual collision mortalities, or 3.9% 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 pre-submission projects.

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.

3.4.2 Alde-Ore Estuary SPA

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.

3.4.2.1 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 (2 out of 54 annual collision mortalities², or 3.7%). 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 is to provide an artificial structure providing additional nesting sites for kittiwake. 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

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

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.

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, these 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 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 easily repaid.

Natural England also highlights that the use of a single structure does put the Project's 'eggs in one basket' and notes that the use of more than one structure would usefully spread the risk of one structure failing to attract birds. Depending on the locations available, the use of multiple structures may be worth exploring.

We note and welcome the commitment to collaborate with the EA1N/EA2 developers, though we query why internal collaboration with the Norfolk Vanguard project has not been considered should, as Natural England advises, the Secretary of State require compensatory measures for this project. 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. We assume 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.

Natural England’s main concern is that to date the Project has been unable to identify a specific location with landowner participation to install the New Zealand style predator exclusion fencing, meaning that this may not be achieved until the post-consent period, if at all. This can only reduce the level of confidence that this measure can be secured.

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 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, though we query why internal collaboration with the Norfolk Vanguard project has not been considered. 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

[Redacted signature block]

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