



Thanet Extension Offshore Windfarm – Issue Specific Hearing 8 Action Points

Planning Inspectorate Reference: EN010084

29th April 2019

Natural England have provided answers below to the questions relevant to our remit only.

Action	Party	NE Response	Deadline
<p>1 Red Throated Diver of the Outer Thames Estuary SPA</p> <p>a. Natural England to comment on the Applicant's submission [REP4-023] and set out its latest position in respect of the applicant's HRA conclusions relating to Red Throated Diver of the Outer Thames Estuary SPA.</p> <p>b. In the event that Natural England is not able to agree to the Applicant's conclusion of no Adverse Effect on Integrity, the Applicant and Natural England should each provide a written view on the following question: 'If the Secretary of State as Competent Authority was to conclude that there may be an adverse effect on integrity (in-combination), then what alternative solutions and compensatory measures have been considered? To what extent is it necessary to proceed to stages beyond Stage 2 of the HRA assessment process, i.e. alternative solutions and Imperative Reasons of Overriding Public Interest?'</p>	<p>The Applicant and Natural England</p>	<p>For Natural England's responses to 1a. and 1b. please refer to Appendix 1 below.</p>	<p>D5</p>
<p>2 Gannet of the Flamborough and Filey Coast SPA</p> <p>The Applicant to ensure that the next iteration of the offshore ornithology SOCG confirms the status of agreement with Natural England in respect of in-combination effects on Gannet of the Flamborough and Filey Coast SPA.</p>	<p>The Applicant</p>	<p>N/A</p>	<p>D5</p>

<p>3</p>	<p>Kittiwake of the Flamborough and Filey Coast SPA</p> <p>a. Natural England to comment on the Applicant's submission [REP4-029] and in particular:</p> <ul style="list-style-type: none"> • the position that the anticipated decommissioning of the Beatrice Demonstrator and Blyth (NaRec Demonstration) project would more than offset the kittiwake collision risk attributable to TEOWF; • The contention at para 22 that 'new evidence' indicates that previous Habitats Regulations Assessments that fed into the current conclusions were over-precautionary. <p>b. Natural England to set out its latest position in respect of the applicant's HRA conclusions relating to Kittiwake of the Flamborough and Filey Coast SPA.</p> <p>c. The Applicant and Natural England to set out their views about the degree of accuracy of the collision model at very low values, such as figures of between 0.6 and 1.6 birds. Can these figures be considered to be statistically robust?</p> <p>d. In the event that Natural England is not able to agree to the Applicant's conclusion of no Adverse Effect on Integrity, the Applicant and Natural England should each provide a written view on the following question: <i>'If the Secretary of State as Competent Authority was to conclude that there may be an adverse effect on integrity (in-</i></p>	<p>The Applicant and Natural England</p>	<p>For Natural England's responses to 3a to d please refer to Appendix 1 below.</p>	<p>D5</p>
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	<i>combination), then what alternative solutions and compensatory measures have been considered? To what extent is it necessary to proceed to stages beyond Stage 2 of the HRA assessment process, i.e. alternative solutions and Imperative Reasons of Overriding Public Interest?'</i>			
4	<p>Updated In-Combination Assessment for Kittiwake Arising from the Norfolk Vanguard Examination</p> <p>The Applicant is to submit into this examination the updated in-combination assessment for Kittiwake recently arising from the Norfolk Vanguard examination. The Applicant should provide a clear statement of the current status of agreement between Norfolk Vanguard and Natural England in relation to that assessment.</p>	The Applicant	N/A	D5
5	<p>Effects on St Abb's Head to Fast Castle SPA</p> <p>The Applicant to provide an update regarding its consultation with Scottish Natural Heritage in relation to the St Abb's Head to Fast Castle SPA.</p>	The Applicant	N/A	D5
6	<p>Ringed Plover Mitigation</p> <p>The latest submitted version of the dDCO contains new provisions related to pre-construction surveys and a mitigation plan for Ringed Plover. The Applicant explained at ISH8 that this has been included following an audit of the Schedule of Mitigation and</p>	Natural England, Kent Wildlife Trust and other relevant IPs	Natural England welcome the provision of pre-construction surveys to determine the location or presence of ringed plover, which will then inform the need for a ringed plover mitigation plan. Ringed plover are a notified feature of the Sandwich Bay and Hacklinge Marshes SSSI and we welcome any further	D5

	<p>relates to the conclusions of the Environmental Statement.</p> <ul style="list-style-type: none"> Please would Natural England, Kent Wildlife Trust and any other relevant IPs respond to these new DML provisions? 		<p>surveys and additional mitigation.</p>	
7	<p>In Principle Offshore Ornithology Monitoring Plan</p> <p>Natural England to provide comments on the Applicant's response to its comments on the draft In Principle Offshore Ornithology Monitoring Plan.</p> <ul style="list-style-type: none"> To what extent does the Plan perform the role envisaged by Natural England? 	Natural England	<p>Natural England notes the applicant's comments in relation to Ornithological Monitoring. We accept that both options of a site specific study and a wider study are considered at this stage. We acknowledge that whether a site specific study is appropriate will depend on the results of a power analysis to determine whether a significant displacement effect can be detected. If a more 'strategic' study is considered we advise that the focus should remain on the levels of displacement of red throated diver from the Outer Thames Estuary SPA.</p>	D5
8	<p>HRA Conclusions in respect of Thanet Coast and Sandwich Bay SPA</p> <p>Does Natural England agree with the Applicant's statement that the saltmarsh is not a supporting feature of the Thanet Coast and Sandwich Bay SPA. If not, why not?</p>	Natural England	<p>No, Natural England does not agree with the Applicant's statement that saltmarsh is not a supporting feature of the Thanet Coast and Sandwich Bay SPA. We have raised consistently throughout our relevant representation and written representations that we believe the saltmarsh does provide a role in supporting the features of the SPA. The applicant's assertions that it</p>	D5

			doesn't provide a role is based on limited survey data from the site. Furthermore, even though the applicant suggests that the saltmarsh is not utilised by the features it would be wrong to state that the saltmarsh does not provide an ecological service to the wider SPA.	
9	<p>Harbour Porpoise of the Southern North Sea SAC</p> <p>a. The Applicant to provide updated SOCGs with Natural England and MMO covering HRA conclusions for marine mammals, particularly Harbour Porpoise of the Southern North Sea SAC, and the contents of the Outline Site Integrity Plan.</p> <p>b. In the event that Natural England is not able to agree to the Applicant's conclusion of no Adverse Effect on Integrity, the Applicant and Natural England should each provide a written view on the following: <i>'If the Secretary of State as Competent Authority was to conclude that there may be an adverse effect on integrity, then what alternative solutions and compensatory measures have been considered? To what extent is it necessary to proceed to stages beyond Stage 2 of the HRA assessment process, i.e. alternative solutions and Imperative Reasons of Overriding Public Interest?'</i></p>	The Applicant, Natural England and MMO	<p>a. Discussions are still ongoing with the applicant regarding the Technical topics SoCG and we shall aim to submit the latest version as soon as possible.</p> <p>b. For Natural England's response to 9b please refer to Appendix 2 below.</p>	D5
10	<p>Thanet Coast SAC</p> <p>The Applicant to provide an updated SOCG with Natural England covering HRA</p>	Natural England, Kent Wildlife	Please refer to the Technical Topics SoCG as submitted by the applicant at Deadline 5.	D5

	conclusions for the Reef feature (alone and in-combination) of the Thanet Coast SAC for D5.	Trust and the Applicant		
11	<p>Saltmarsh Mitigation, Reinstatement and Monitoring Plan</p> <p>a. Natural England and Kent Wildlife Trust to respond in writing to the Rev C version of the Applicant's Saltmarsh Mitigation, Reinstatement and Monitoring Plan [REP4-020]. Is this Plan now agreed?</p> <p>b. The Applicant and previously mentioned parties to respond in writing to the question of whether the DCO/DMLs adequately secure the reinstatement commitments set out at section 7.2 of the SMRMP.</p>	Natural England, Kent Wildlife Trust and the Applicant	<p>a. Natural England have provided comment within section 2 of our Deadline 5 response. This plan is now agreed with the applicant.</p> <p>b. The reinstatement commitments are clearly outlined within section 7.2, with post construction monitoring of the saltmarsh within the SMRMP additionally outlined within condition 12 (2) (a) of the DCO/DML. The SMRMP is also a certified document within the DCO. Although this does provide reassurance to Natural England that the commitments within the SMRMP will be followed, a reference to reinstatement following construction would be beneficial.</p>	D5
12	<p>Cable Protection Installation within the Inter-Tidal Area</p> <p>The latest SOCG (D3) indicates that the MMO disagrees with the Applicant's statement that 'no cable protection will be installed within in the Sandwich Bay intertidal area and this has been adequately secured in the DCO'.</p> <ul style="list-style-type: none"> • Would the MMO provide an update on this point by D5? 	MMO	N/A	D5

<p>13</p>	<p>Seasonal Restriction for Inter-Tidal Cable Works</p> <p>a. The Applicant to explain in writing why it has not considered it appropriate to specify the details of the seasonal restriction ('October to March inclusive') on the face of the DCO or DML. Would the Applicant object to such an approach? If not, would a DCO requirement or DML condition be more appropriate and why?</p> <p>b. Mitigation reference 5.20 of the Schedule of Mitigation [REP3-047] states that the same seasonal restriction would apply for 'planned O&M works'. The Applicant to explain how the seasonal restriction for planned operations and maintenance works in the intertidal zone is secured in the DCO.</p> <p>c. The Applicant to respond to the question of whether the geographical extent of the shoreline and inter-tidal zone subject to the seasonal restriction is completely clear and unambiguous, or whether it requires further definition.</p> <p>d. Natural England/Kent Wildlife Trust/relevant Local Authorities to comment on the above points, should they have views to contribute.</p>	<p>The Applicant, Natural England, Kent Wildlife Trust, Thanet District Council, Dover District Council, Kent County Council</p>	<p>Natural England comments on the associated questions posed by the ExA:</p> <p>a. Although the seasonal restriction is stated within the ES documentation, it is only mentioned once within the DCO where it states "<i>proposed timings for mobilisation of plant delivery of materials and installation works having due regard to seasonal restrictions as assessed within the ES.</i>" This seasonal restriction is a key piece of mitigation for construction works to avoid adverse effects upon the features of the SPA and therefore a more explicit condition within the DCO / DML would be appropriate.</p> <p>b. No further comment from Natural England.</p> <p>c. Natural England would welcome this further clarification on the true geographical extent of the seasonal restriction.</p> <p>d. See above.</p>	<p>D5</p>
<p>14</p>	<p>Schedule of Mitigation</p> <p>a. The Applicant to update the Schedule of Mitigation to ensure that it includes accurate references to where in the Environmental Statement the seasonal</p>	<p>The Applicant</p>	<p>N/A</p>	<p>D5</p>

	<p>restriction has been assessed for the purposes of Condition 10(1)(c)(ii).</p> <p>b. If the Schedule of Mitigation is intended to be a certified document, the Applicant to amend dDCO drafting for next iteration as it is not currently listed in Schedule 13.</p>			
15	<p>Appropriate Security of Mitigation in the Inter-tidal Zone</p> <p>The Applicant and relevant IPs to respond to the ExA's question about whether it is appropriate to secure mitigation in the inter-tidal zone (such as the seasonal restriction and SMRMP) solely by DML condition, given the overlapping jurisdictions of terrestrial and marine authorities in the inter-tidal zone.</p>	The Applicant and relevant IPs	Natural England defer to the MMO on this point. Regardless, it is essential that the mitigation is adequately secured within the DCO / DML. It should be clear, unambiguous and there should be the necessary mechanisms in place for the MMO (or relevant competent authority) to take action.	D5
16	<p>Effects on Goodwin Sands pMCZ</p> <p>Applicant to:</p> <p>a. submit a revised MCZ Clarification Note to take account of IP comments for D5;</p> <p>b. update DML condition drafting expressly related to the pMCZ; and,</p> <p>c. use updated SOCGs at D5 to document the latest position in terms of agreement / outstanding disagreement on MCZ matters.</p>	The Applicant	N/A	D5

17	<p>Outline Offshore Operation and Maintenance Plan</p> <p>The Applicant to explain in writing by D5 why the categorisation of some of these Outline Offshore Operation and Maintenance Plan activities have changed from green to amber between Rev A and Rev B. Should the fact that a number of O&M activities may fall outside of the activities licensed by the DMLs be of concern to the ExA?</p> <ul style="list-style-type: none"> • MMO and any other relevant IPs to comment on this by D6. 	The Applicant, MMO, relevant IPs	All O&M activities should be assessed up front within the environmental assessment and thus covered in the current parameters outlined within the DML. This reduces risks to the project and environment during construction and operational phase of the project.	D5 and D6
18	<p>The Crown Estate Plan-Level HRA Update</p> <p>The Crown Estate to provide an update on the status of its plan-level HRA before close of the examination on 11 June 2019.</p> <ul style="list-style-type: none"> • The Crown Estate to confirm whether or not the plan-level HRA takes account of the proposed SEZ. 	The Crown Estate	N/A	Before 11 June 2019
19	<p>The Crown Estate Agreement for Lease Update</p> <p>The Crown Estate to provide an update on the status of the Agreement for Lease for TEOWF before close of the examination of 11 June 2019.</p>	The Crown Estate	N/A	Before 11 June 2019
20	<p>The Crown Estate: Relevance of Decisions About Round 4 Leasing</p>	The Applicant and the Crown Estate	N/A	D5

	The Crown Estate and the Applicant to respond to the ExA's question: "what is the relevance to the TEOW application of the decision for the North Kent Coast and Thames Approaches to be excluded from the Round 4 leasing exercise."			
21	Fisheries Co-existence and Liaison Plan Final Fisheries Co-existence and Liaison Plan must be submitted into the examination by D6 at latest, along with any further mitigation matters that the applicant wishes the ExA to take into account.	The Applicant	N/A	D6
22	Final Positions on the Assessment of Commercial Fishing Effects The Applicant, Thanet Fishermen's Association and any other relevant fishing interests to submit final positions on the sensitivity and magnitude assessment of effects on commercial fishing by D5.	The Applicant, Thanet Fishermen's Association and relevant fishing interests	N/A	D5
23	Statement of Common Ground on Fishing Matters The Applicant to submit revised Fishing SOCG at D6.	The Applicant	N/A	D6
24	Disruption Agreements The Applicant to provide an update on progress with the production of any disruption agreements by D6.	The Applicant	N/A	D6

Appendix 1 – Ornithology Action Points from the Examining Authority in Respect of Thanet Extension at ISH8

1. Red Throated Diver of the Outer Thames Estuary SPA

a. Natural England to comment on the Applicant's submission [REP4-023] and set out its latest position in respect of the applicant's HRA conclusions relating to Red Throated Diver of the Outer Thames Estuary SPA.

Natural England notes the submission of a paper to consider the implications of the introduction of the Structural Exclusion Zone (SEZ). We acknowledge that the SEZ has the incidental result of Thanet Extension OWF being at a greater distance from the Outer Thames Estuary SPA boundary than the original assessment, which will have the effect of reducing the impacts of any potential disturbance effects of the SPA. However, it is noted that that the majority of the SEZ is now closest part of the array to the SPA boundary.

We accept that Thanet Extension's in-combination contribution is in all likelihood, to be very small in the context of impacts from other OWF projects which lie within, rather than some distance beyond, the SPA. The fact that the array will be further still from the SPA boundary, coupled with the presence of the existing Thanet OWF, which may already be exerting displacement effects within the SPA in this general area, strengthens the argument that this project's additional influence on the in-combination displacement effect is likely to be very small indeed. Nevertheless, as the extension has the potential to result in additional displacement effects within the SPA beyond those from the Thanet OWF, it is not possible for Natural England to state that there is no adverse effect in-combination beyond reasonable scientific doubt.

The paper 'red throated diver cumulative (EIA) and in-combination (HRA) impact assessment methodology' was submitted as Appendix 1, Annex C, at Deadline 1 by the Applicant. It is not clear how Thanet Extension's relative contribution to the total RTD displacement is reduced from 0.31% (Table 12) to zero. There are no updated calculations provided to demonstrate that the relative contribution from Thanet Extension is now 0.0%, though it will clearly be less than the 0.31% originally predicted.

In Paragraph 13 it states that "... the array area is now very close to the 8 km distance that Natural England has advocated as the outer limit for any potential influence of a constructed OWF on red-throated diver. This outer limit was defined by Natural England based on a post-construction study of the London Array OWF (APEM 2016) that identified that the displacement effect decays from 100% displacement at 0 km from the OWF to 0% displacement at 8 km from the OWF." This statement is inaccurate, as we do not consider 8 km as the outer limit for influence of windfarms, as some studies have detected displacement beyond 8 km (Petersen *et al.*, 2014). In the evidence plan meetings Natural England advocated that evidence suggests that red throated divers may exhibit displacement from offshore wind farms at distances greater than 4 km, and for screening purposes a distance of up to 10 km should be used to screen in SPAs for assessment.

We note the applicant's view that this project may now be considered to be outside of any influence on this species when in the SPA. However, whilst this may be this case, the applicant's assertion that the project's contribution to displacement of RTD from OTE SPA is zero as a result of the implementation of the SEZ is not evidenced in this paper. Nevertheless we do acknowledge that there is some uncertainty regarding the probability of there being any displacement effect at all, given the distance that the project is now planned to be from the SPA, and the presence of the existing Thanet windfarm.

We note the error in our previous reference to the project being 8 km from the Outer Thames Estuary SPA. We confirm that Applicant's assumption that Natural England's "...concerns arise from consents for OWFs that have already been granted and not from the predicted impacts of Thanet Extension" is correct. However, we have not seen the implications of the SEZ assessed as part of the revised RTD in-combination assessment (originally presented by the Applicant at Deadline 1). Therefore we are unable to agree with the Applicant's assertion that "Thanet Extension will therefore make no contribution to any in-combination assessment of potential displacement of red-throated diver in the Outer Thames Estuary SPA", although clearly there will be a reduction of the effect previously predicted due to the array being further from the SPA boundary.

Natural England's conclusion remains that Thanet Extension alone has no adverse effect on the integrity of the RTD feature of the Outer Thames Estuary SPA. There is some uncertainty whether there is likely to be any contribution to in-combination displacement effects given the distance between Thanet Extension and the OTE SPA, now that the SEZ forms part of the application, but due to the existing displacement effects from operational projects it is not possible for Natural England to state that there is no adverse effect in-combination beyond reasonable scientific doubt.

In this context, Natural England highlights the importance of the need for any post consent ornithological monitoring, should this project be consented, to focus on the extent of red throated displacement in and around Outer Thames Estuary SPA.

b. In the event that Natural England is not able to agree to the Applicant's conclusion of no Adverse Effect on Integrity, the Applicant and Natural England should each provide a written view on the following question: 'If the Secretary of State as Competent Authority was to conclude that there may be an adverse effect on integrity (in-combination), then what alternative solutions and compensatory measures have been considered? To what extent is it necessary to proceed to stages beyond Stage 2 of the HRA assessment process, i.e. alternative solutions and Imperative Reasons of Overriding Public Interest?'

If the component authority concludes that an adverse effect on integrity cannot be ruled out under regulation 63* for a given plan or project, under regulation 64* of the Habitats Regulations the competent authority must demonstrate whether there is an absence of alternatives as well as whether there are imperative reasons of overriding public interest (IROPI) (*Regulation 25 and 26 in the Offshore Habitats Regulations).

Alternatives to the public interest objectives arising from a plan or project can be considered at a number of scales. A useful overview can be found within the recently-updated EC guidance "Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC" http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_6_nov_2018_endocx.pdf.

This guidance notes that 'the competent authorities should examine the possibility of resorting to alternative solutions which better respect the integrity of the site in question. All feasible alternatives that meet the plan or project aims, in particular, their relative performance with regard to the site's conservation objectives, integrity and contribution to the overall coherence of the Natura 2000 network have to be analysed, taking also into account their proportionality in terms of cost. They might involve alternative locations or routes, different scales or designs of development, or alternative processes.'

In the context of red-throated diver displacement, alternatives at the project scale could involve the consideration of 'different scales or designs of development' that would address the project's potential contribution to the in-combination displacement effects on red-throated divers using the Outer Thames Estuary SPA, for example by further modifications to the SEZ. Natural England would be pleased to discuss these with the Applicant.

Although it is acceptable to discuss compensatory measures in principle and without prejudice prior to an Appropriate Assessment (AA) or Habitats Regulations Assessment (HRA), it is important to recognise that compensatory measures can only be formally considered after a negative assessment under regulation 63 and where in the absence of alternatives and the presence of IROPI (regulation 64), the competent authority is minded to approve the plan or project.

In this scenario it is the duty of the relevant Secretary of State to secure such compensatory measures as is necessary to ensure the overall coherence of Natura 2000 is protected. The relevant SNCB(s) role is to advise on the effectiveness of the proposed compensatory measures and whether they are likely to achieve the objectives.

Compensation should not be confused with mitigation measures which aim to avoid or reduce the extent of harm and form part of the plan or project and/or are directly connected with its implementation. Compensatory measures therefore need to be independent of the proposed project.

In order to ensure the overall coherence of the Natura 2000 Network (and comply with EC guidance), Natural England provides the general advice that:

- It should be possible to draw on empirical evidence to demonstrate a reasonable expectation of success within a reasonable timeframe.
- There should be a clear plan for undertaking the compensation and subsequent management to ensure that objectives are met.
- Compensation should be in comparable proportions to those habitats and species that are adversely affected. They should be within the same biogeographical region in the territory of the same Member State and should provide functions comparable to those that had justified the selection criteria of the original site.
- Compensatory measures should be completed and land designated (where applicable) before work on the consented plan or project commences.

It should be noted that there are very few cases that have reached the IROPI stage within the marine environment, and of those cases there is limited commonality with this project. As such Natural England is unable to provide examples of suitable compensatory measures at this stage.

Natural England reference a report commissioned and published by CEFAS titled 'Evidence Review to support the identification of potential conservation measures for selected species of seabirds' (MacArthur Green 2013). The report seeks to identify measures that could be implemented either at protected sites or elsewhere with a view to informing considerations around the mitigation (some elements of which could be considered as project-specific alternative solutions) or compensation of predicted impacts from offshore marine developments.

It should be noted that compensatory measures for red-throated diver were not discussed as part of the Evidence Plan Process or have been during the Examination, and therefore this matter is yet to be explored with the applicant. Natural England are happy to engage in informal discussions regarding compensatory measures at this stage, but in the absence of previous examples to draw upon we would look to the applicant to propose options supported by empirical evidence as a starting point.

3. Kittiwake of the Flamborough and Filey Coast SPA

a. Natural England to comment on the Applicant's submission [REP4-029] and in particular:

- ***the position that the anticipated decommissioning of the Beatrice Demonstrator and Blyth (NaRec Demonstration) project would more than offset the kittiwake collision risk attributable to TEOWF;***
- ***The contention at para 22 that 'new evidence' indicates that previous Habitats Regulations Assessments that fed into the current conclusions were over-precautionary.***

We welcome the Applicant's submission REP4-029 and the aim to provide the Examining Authority with a clearly defined position with regards potential effects on the kittiwake feature of the Flamborough and Filey Coast (FFC) SPA that are associated with the Thanet Extension project.

Natural England notes that all the projects in Table 1 above that all projects included within the in-combination assessment for kittiwake from Flamborough and Filey Coast SPA the Competent Authority, concluded no AEoI alone and in-combination. However Natural England's view (as was already advised at Hornsea 2 and East Anglia 3) is that it was not possible to rule out an adverse effect on integrity on the SPA from operational, consented and proposed projects due to the level of annual collision mortality predicted for kittiwake, and the predicted impacts on the population of the SPA.

We agree with paragraphs 12 to 14, but note that paragraphs 15 and 16 appear to be the Applicant's views.

Regarding the potential reductions of the number of turbines for constructed windfarms compared to the worst case scenario for collision risk assessed in the Environmental Statement, Natural England's position is that whilst a consent for a greater number of turbines is still 'live', the worst case scenario should continue to be considered until such time as the remaining capacity is formally withdrawn. Furthermore, an updated CRM for the installed turbine parameters should be carried out, using the specific design parameters of the turbines in question. Natural England notes that East Anglia One is the sole windfarm for which this is the case. Accordingly we advise that 'as built' reductions, with the exception of for East Anglia One, should not be given weight in the HRA.

Whilst we may not agree with every aspect of REP4-029, Natural England agrees that Thanet Extension will not have an adverse effect on the integrity on the kittiwake population of the Flamborough & Filey Coast SPA when considered alone. However, Natural England considers that it is not possible beyond reasonable scientific doubt to rule out an adverse effect on integrity when the project is considered in combination with other plans and projects. Although Thanet Extension is some distance beyond the likely foraging range of kittiwake from the SPA during the breeding season, there is the potential for the proposal to make a contribution to the overall collision mortality total due to impacts in the non-breeding season. As previously stated, this contribution is

likely to be small in the context of an in-combination total arising from a number of operational, consented or proposed projects, several of which are larger and/or closer to the SPA, including projects within the likely foraging range during the breeding season.

With regard to the specific questions, there appears to be some confusion regarding the two OWFs at Blyth in REP4-029. The turbines being decommissioned are the two turbines a short distance offshore from Blyth, which were installed in 2000 by a consortium including E-ON and generally known as Blyth Offshore Wind Farm. This is an altogether different proposal to the Blyth Offshore Demonstrator Ltd. windfarm, also referred to as Blyth NAREC, which is a permission for 15 turbines, 5 of which have been built. Therefore, the predicted reduction in kittiwake collisions for 'Blyth (NaREC Demonstration)' drawn from Table 1 of REP4-029 will not actually arise for the foreseeable future. Therefore, we suggest that the applicant provides evidence to confirm what is being decommissioned and what contribution to the in-combination total it will make.

Natural England disagrees with the contention at para 22 that 'new evidence' indicates that previous Habitats Regulations Assessments that fed into the current conclusions were over-precautionary. We acknowledge the uncertainty in the assessments, and there is an urgent need for a cumulative and in-combination effects database to allow the competent authority to make their decisions using a database of cumulative effects that is based on the most up to date information. The lack of agreed figures and a common method to arrive at them inevitably leads to confusion. Therefore, there is a need for an approach that is appropriately precautionary, standardised, accurate, and based on the best available information. The solution would be to develop an interactive, updateable tool linking agreed datasets (e.g. seabird density and windfarm specifications) with agreed tools, for example collision risk modelling using agreed input parameters. Such a tool would allow standardised cumulative effects assessments to be made, and for such assessments to be updated as new input datasets become available (including turbine parameter changes that arise from changes in consented 'as built' scenarios). Therefore, we acknowledge that there is considerable uncertainty around the current estimates of the in-combination totals but we disagree that there is new evidence to suggest assessments are over precautionary.

b. Natural England to set out its latest position in respect of the applicant's HRA conclusions relating to Kittiwake of the Flamborough and Filey Coast SPA.

As set above, Natural England's position is that Thanet Extension will not have an adverse effect on the integrity on the kittiwake population of the Flamborough & Filey Coast SPA when considered alone. However, Natural England considers that it is not possible to rule out an adverse effect beyond reasonable scientific doubt on integrity when the project is considered in combination with other plans and projects. Although Thanet Extension is some distance beyond the likely foraging range of kittiwake from the SPA during the breeding season, there is the potential for the proposal to make a contribution to the overall collision mortality total. This contribution is likely to be small in the context of an in-combination total arising from a number of operational, consented or proposed projects, several of which are larger and/or closer to the SPA, including projects within the likely foraging range during the breeding season.

c. The Applicant and Natural England to set out their views about the degree of accuracy of the collision model at very low values, such as figures of between 0.6 and 1.6 birds. Can these figures be considered to be statistically robust?

As highlighted in our relevant and written representations there is uncertainty around input parameters including flight height and nocturnal activity, which will influence the collision risk modelling outputs, and there are also assumptions around how birds are apportioned to Flamborough and Filey Coast SPA. However, whilst it may not be possible to state that the figures are robust, we accept that the estimates are likely to be within that range.

d. In the event that Natural England is not able to agree to the Applicant's conclusion of no Adverse Effect on Integrity, the Applicant and Natural England should each provide a written view on the following question: 'If the Secretary of State as Competent Authority was to conclude that there may be an adverse effect on integrity (in-combination), then what alternative solutions and compensatory measures have been considered? To what extent is it necessary to proceed to stages beyond Stage 2 of the HRA assessment process, i.e. alternative solutions and Imperative Reasons of Overriding Public Interest?'

If the component authority concludes that an adverse effect on integrity cannot be ruled out under regulation 63* for a given plan or project, under regulation 64* of the Habitats Regulations the competent authority must demonstrate whether there is an absence of alternatives as well as whether there are imperative reasons of overriding public interest (IROPI) (*Regulation 25 and 26 in the Offshore Habitats Regulations).

Alternatives to the public interest objectives arising from a plan or project can be considered at a number of scales. A useful overview can be found within the recently-updated EC guidance "Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC" http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_.nov.2018_endocx.pdf.

This guidance notes that 'the competent authorities should examine the possibility of resorting to alternative solutions which better respect the integrity of the site in question. All feasible alternatives that meet the plan or project aims, in particular, their relative performance with regard to the site's conservation objectives, integrity and contribution to the overall coherence of the Natura 2000 network have to be analysed, taking also into account their proportionality in terms of cost. They might involve alternative locations or routes, different scales or designs of development, or alternative processes.'

In the context of kittiwake collision mortality, alternatives at the project scale could involve the consideration of 'different scales or designs of development' that would address the project's potential contribution to the predicted annual in-combination collision mortality total for kittiwakes from the Flamborough & Filey Coast SPA, for example opting to use turbine specifications that reduce the number of collisions. Natural England would be pleased to discuss these with the Applicant.

Although it is acceptable to discuss compensatory measures in principle and without prejudice prior to an Appropriate Assessment (AA) or Habitats Regulations Assessment (HRA), it is important to recognise that compensatory measures can only be formally considered after a negative assessment under regulation 63 and where in the absence of alternatives and the presence of IROPI (regulation 64), the competent authority is minded to approve the plan or project.

In this scenario it is the duty of the relevant Secretary of State to secure such compensatory measures as is necessary to ensure the overall coherence of Natura 2000 is protected. The

relevant SNCB(s) role is to advise on the effectiveness of the proposed compensatory measures and whether they are likely to achieve the objectives.

Compensation should not be confused with mitigation measures which aim to avoid or reduce the extent of harm and form part of the plan or project and/or are directly connected with its implementation. Compensatory measures therefore need to be independent of the proposed project.

In order to ensure the overall coherence of the Natura 2000 Network (and comply with EC guidance), Natural England provides the general advice that:

- It should be possible to draw on empirical evidence to demonstrate a reasonable expectation of success within a reasonable timeframe.
- There should be a clear plan for undertaking the compensation and subsequent management to ensure that objectives are met.
- Compensation should be in comparable proportions to those habitats and species that are adversely affected. They should be within the same biogeographical region in the territory of the same Member State and should provide functions comparable to those that had justified the selection criteria of the original site.
- Compensatory measures should be completed and land designated (where applicable) before work on the consented plan or project commences.

It should be noted that there are very few cases that have reached the IROPI stage within the marine environment, and of those cases there is limited commonality with this project. As such Natural England is unable to provide examples of suitable compensatory measures at this stage.

Natural England reference a report commissioned and published by CEFAS titled 'Evidence Review to support the identification of potential conservation measures for selected species of seabirds' (MacArthur Green 2013).

The report seeks to identify measures that could be implemented either at protected sites or elsewhere with a view to informing considerations around the mitigation (some elements of which could be considered as project-specific alternative solutions) or compensation of predicted impacts from offshore marine developments.

It should be noted that alternative solutions or compensatory measures for kittiwake were not discussed as part of the Evidence Plan Process or have been during the Examination, and therefore this matter is yet to be explored with the applicant. Natural England are happy to engage in informal discussions regarding compensatory measures at this stage, but in the absence of previous examples to draw upon we would look to the applicant to propose options supported by empirical evidence as a starting point.

Appendix 2 – Marine Mammal Action Points from the Examining Authority in Respect of Thanet Extension at ISH8

b. In the event that Natural England is not able to agree to the Applicant's conclusion of no Adverse Effect on Integrity, the Applicant and Natural England should each provide a written view on the following: 'If the Secretary of State as Competent Authority was to conclude that there may be an adverse effect on integrity, then what alternative solutions and compensatory measures have been considered? To what extent is it necessary to proceed to stages beyond Stage 2 of the HRA assessment process, i.e. alternative solutions and Imperative Reasons of Overriding Public Interest?'

If the component authority concludes that an adverse effect on integrity cannot be ruled out under regulation 63* for a given plan or project, under regulation 64* of the Habitats Regulations the competent authority must demonstrate whether there is an absence of alternatives as well as whether there are imperative reasons of overriding public interest (IROPI) (*Regulation 25 and 26 in the Offshore Habitats Regulations).

Alternatives to the public interest objectives arising from a plan or project can be considered at a number of scales. A useful overview can be found within the recently-updated EC guidance "Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC" http://ec.europa.eu/environment/nature/natura2000/management/docs/art6/Provisions_Art_.nov_2018_endocx.pdf.

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Although it is acceptable to discuss compensatory measures in principle and without prejudice prior to an Appropriate Assessment (AA) or Habitats Regulations Assessment (HRA), it is important to recognise that compensatory measures can only be formally considered after a negative assessment under regulation 63 and where in the absence of alternatives and the presence of IROPI (regulation 64), the competent authority is minded to approve the plan or project.

In this scenario it is the duty of the relevant Secretary of State to secure such compensatory measures as is necessary to ensure the overall coherence of Natura 2000 is protected. The relevant SNCB(s) role is to advise on the effectiveness of the proposed compensatory measures and whether they are likely to achieve the objectives.

Compensation should not be confused with mitigation measures which aim to avoid or reduce the extent of harm and form part of the plan or project and/or are directly connected with its implementation. Compensatory measures therefore need to be independent of the proposed project.

In order to ensure the overall coherence of the Natura 2000 Network (and comply with EC guidance), Natural England provides the general advice that:

- It should be possible to draw on empirical evidence to demonstrate a reasonable expectation of success within a reasonable timeframe.
- There should be a clear plan for undertaking the compensation and subsequent management to ensure that objectives are met.
- Compensation should be in comparable proportions to those habitats and species that are adversely affected. They should be within the same biogeographical region in the territory of the same Member State and should provide functions comparable to those that had justified the selection criteria of the original site.
- Compensatory measures should be completed and land designated (where applicable) before work on the consented plan or project commences.

It should be noted that there are very few cases that have reached the IROPI stage within the marine environment, and of those cases there is limited commonality with this project. As such Natural England is unable to provide examples of suitable compensatory measures at this stage.

It should be noted that compensatory measures for harbour porpoise were not discussed as part of the Evidence Plan Process or have been during the Examination, and therefore this matter is yet to be explored with the applicant. Natural England are happy to engage in informal discussions regarding compensatory measures at this stage, but in the absence of previous examples to draw upon we would look to the applicant to propose options supported by empirical evidence as a starting point.