



# Norfolk Vanguard Offshore Wind Farm Consideration of the Purpose of the Haisborough Hammond and Winterton Special Area of Conservation Site Integrity Plan

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*Photo: Kentish Flats Offshore Wind Farm*

## Norfolk Vanguard

### The purpose of the Haisborough, Hammond and Winterton (HHW) Special Area of Conservation (SAC) Site Integrity Plan (SIP)

#### 1. INTRODUCTION

- 1.1 This note considers the principles and purposes of the outline Norfolk Vanguard Haisborough, Hammond and Winterton (HHW) Special Area of Conservation (SAC) Site Integrity Plan (SIP) and the extent to which they align with the principles and purposes of Condition 8 in the consented Deemed Marine Licences (DMLs) for Hornsea Project TWO and the SIP for the Southern North Sea (SNS) SAC for East Anglia THREE, both of which were accepted as an appropriate approach to deliver mitigation by the Secretary of State.

#### 2. HORNSEA PROJECT TWO

- 2.1 In the Record of the Habitats Regulations Assessment for Hornsea Project TWO dated 15 August 2016, the Secretary of State's conclusion on Adverse Effect on Integrity (AEoI) of the SNS pSAC reads:

"15.159 The Secretary of State has considered the information received both during the Examination and from consultation after Examination. The Secretary of State concludes that there will be no adverse effect on integrity of the Southern North Sea pSAC as a result of the Project either alone or in-combination with other plans or projects due to the inclusion of Condition 8 in the DML which secures sufficient mitigation."

- 2.2 In the Development Consent Order (DCO) granted by the Secretary of State for Hornsea Project TWO Conditions 8(6) and 8(7) of the generation assets marine licences reads:

"(6) *In the event that driven or part-driven pile foundations are proposed to be used, the MMO must not approve the plan referred to in paragraph (1) or the code referred to in paragraph (2) unless the MMO is satisfied, after consulting such persons as the Secretary of State may specify in relation to the plan or the part of the code specified by the Secretary of State (in addition to the persons with whom consultation is otherwise required under this Condition), that either the plan or code (or both of them) provides such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2007 Regulations) of a relevant site, to the extent that marine mammals are a protected feature of that site.*

(7) *The mitigation referred to in paragraph (6) may include (without limitation) –*

- (a) *seasonal restrictions to piling*
- (b) *scheduling of piling having regard to previous, ongoing and future piling associated with other offshore developments, based on an updated assessment of cumulative impacts;*
- (c) *subject to the terms and conditions of this licence, changing the location of wind turbine generators;*
- (d) *the use of alternative foundation methodologies, such as jacket foundations (suction piles) or gravity base foundations;*
- (e) *the use of noise reduction at source technologies;*
- (f) *the use of other relevant technologies or other methodologies that may emerge in the future."*

2.3 In the Secretary of State's decision letter on Hornsea Project TWO dated 16 August 2016 it is stated:

"4.36 The Secretary of State has concluded that the provisions will ensure no adverse effect on the integrity of the Southern North Sea pSAC. The Secretary of State considers that Condition 8(7)(a), (b) and (c) allow a conclusion of no adverse effect on site integrity to be reached as these ensure that piling can only go ahead in seasons of least impact, piling will only occur after consideration and restriction of timing of construction of the Development in relation to other projects and have the capacity to limit the locations of turbines such that fewer turbines are located within the pSAC and/or that turbines are placed at the greatest possible distance from the pSAC boundary. Sub-paragraphs (d) to (f) of Condition 8(7) provide additional mitigation measures should these be available at the time of construction and could be used such that the implementation of sub-paragraphs (a) to (c) may be limited."

2.4 In the event that driven or part-driven pile foundations are proposed to be used, a range of possible mitigation measures (without limitation) is therefore set out within the associated sub-paragraphs of the Condition to enable the MMO to be satisfied that either the design plan or the Code of Construction Practice (or both) would provide such mitigation as is necessary to avoid AEol of a relevant site to the extent that marine mammals are a protected feature of that site.

### **3. THE SECRETARY OF STATE'S DECISION LETTER ON EAST ANGLIA THREE**

3.1 For the East Anglia THREE (EA3) DCO a draft SIP was produced pre-consent in conjunction with a DML Condition which was broadly similar to that produced for Hornsea Project TWO, relating to the SNS pSAC. In the Secretary of State's Decision Letter on EA3 dated 7 August 2017 the draft SIP is referred to under the heading "(vi) Southern North Sea ("SNS") cSAC" (Page 8) as follows:

"During the Examination, The Wildlife Trusts ("TWT") and Whale and Dolphin Conservation ("WDC") expressed concern in relation to the Applicant's alone and in-combination assessment of harbour porpoise disturbance and displacement from underwater noise. However, it is noted that the Applicant has secured adequate mitigation in the DMLs to be delivered through the Site Integrity Plan ("SIP"). In the event that piling is proposed or used, a SIP must be submitted to the Marine Management Organisation (MMO) and the MMO must satisfy itself that it provides such mitigation as is necessary to avoid adversely affecting the integrity of the cSAC. A draft SIP submitted by the Applicant puts forward a number of potential mitigation measures such as: a schedule to control piling events; the use of alternative foundation methodologies; and noise mitigation systems. NE considered that the approach set out in this document would allow for a conclusion of no AEol to be reached and both TWT and WDC welcomed the SIP as an approach to deliver mitigation. In the current absence of guidance on management measures from the SNCBs, the Secretary of State considers that the SIP will provide an appropriate framework for approving and securing any mitigation required post consent. On this basis he concludes that there will not be an adverse effect on the integrity of the site alone and in-combination with other plans and projects."

### **4. THE DRAFT SIP FOR EAST ANGLIA THREE**

4.1 On EA3, a similar approach to mitigation of piling impacts on marine mammals was taken to that of Hornsea Project 2, however with the additional inclusion of a draft SIP submitted by the Applicant setting out a number of potential mitigation measures – an approach considered by Natural England (NE) to allow for a conclusion of no AEol to be reached. Set out in Appendix 1 are relevant paragraphs from the East Anglia THREE Recommendation to the Secretary of State, and, in Appendix 2, relevant paragraphs from the East Anglia THREE Habitats Regulations Assessment.

4.2 It can be seen from these paragraphs that the basis on which use of a SIP was recommended to, addressed in the HRA, and approved by the Secretary of State, was:

- 4.2.1 Linkage to a condition in the DMLs (Recommendation 6.7.32, 6.7.37 and HRA 11.35) securing mitigation to avoid AEoI (HRA 11.35 - 11.37 and 11.42), with the outline SIP as a certified document in the DCO.
- 4.2.2 Addressing current areas of uncertainty with regard to such matters as in-combination impacts of noise, final conservation objectives or management measures (Recommendation 6.7.71).
- 4.2.3 Setting out the Applicant's approach to delivering any mitigation or management measures to ensure the pSAC conservation objectives are met, and therefore allowing the conclusion of no AEoI on the pSAC (Recommendation 6.7.34, 6.7.37 - 6.7.39 and HRA 11.34 and 11.65).
- 4.2.4 Providing a framework to secure the development and implementation of specific mitigation measures (if required) to avoid AEoI (Recommendation 6.7.39, 6.7.50 and HRA 11.36 – 11.37 and 11.66).
- 4.2.5 Putting forward a number of mitigation measures (such as a schedule to control piling events; the use of alternative foundation methodologies; and noise mitigation systems) (Recommendation 6.7.49 and 6.7.72 and HRA 11.34 and 11.65).
- 4.2.6 Ensuring the adequacy of mitigation measures and best technologies available at the time of construction (Recommendation 6.7.72).
- 4.2.7 Updating the draft SIP prior to construction to reflect further guidance from the Joint Nature Conservation Committee (JNCC) and NE with regard to conservation objectives and management measures, and once final construction methods have been confirmed (HRA 11.34, 11.42, 11.65 and 11.70).

## 5. THE PROPOSED HHW SIP FOR NORFOLK VANGUARD

- 5.1 The outline Norfolk Vanguard HHW SAC SIP adopts a similar approach to that described above for EA3 and sets out the process for the Applicant to agree with NE and the MMO all works associated with offshore cable installation (including sea bed preparation works and cable protection) and maintenance within the HHW SAC, in order to ensure there would be no AEoI of the site.
- 5.2 Under Article 37 (1)(x) of the Norfolk Vanguard draft DCO the outline Norfolk Vanguard HHW SAC SIP is listed as a certified document.
- 5.3 In Schedules 11 and 12 of the Norfolk Vanguard draft DCO (Transmission Assets Deemed Marine Licences) Condition 9 (1)(m) requires that:
 

*"the licenced activities, or any phase of those activities must not commence until a site integrity plan which accords with the principles set out in the outline Norfolk Vanguard Haisborough, Hammond and Winterton Special Area of Conservation Site Integrity Plan has been submitted to the MMO and the MMO (in consultation with the relevant statutory nature conservation body) is satisfied that the plan provides such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2017 Regulations) of a relevant site, to the extent that sandbanks and sabellaria spinulosa reefs are a protected feature of that site"*.
- 5.4 Since it is not possible to provide detailed method statements for construction prior to consent, due to the long lead in times for the development of offshore wind farms, the document provides an outline of the process post-consent that will be undertaken to ensure the mitigation will deliver no AEoI.
- 5.5 A final detailed SIP will be produced at least six months prior to the commencement of cable installation in the SAC, following revision and consultation as set out in the outline schedule in the SIP and would be based on latest targets, guidance, pre-construction survey data and available evidence from other projects where possible.

## 6. CONCLUSION

- 6.1 The Applicant considers that Condition 9(1)(m) in DCO Schedules 11 and 12 secures the necessary mitigation within the DML whilst allowing scope for refinement of the precise and appropriate measures to be adopted through consultation once final installation and decommissioning methods for the Project have been confirmed.
- 6.2 Insofar as the principles established by the EA3 SIP are concerned, the HHW SIP fully reflects those principles and purposes, in that
- 6.2.1 the outline SIP seeks to address current areas of uncertainty with regard to such matters as the location and extent of the Annex 1 Reef feature (due to its ephemeral nature), and the outcome of pre-construction surveys affecting installation methods, cable crossings and the requirement for cable protection;
  - 6.2.2 the outline SIP sets out the Applicant's approach to delivering any mitigation or management measures to ensure the SAC conservation objectives are met by, for example, cable installation and sea bed preparation, sediment disposal, micro-siting, cable protection, cable and pipeline crossings and cable burial;
  - 6.2.3 the outline SIP provides a framework for development and implementation of specific mitigation measures to avoid AEol, including a table of key milestones to indicate the likely development of the SIP between consent and construction;
  - 6.2.4 the outline SIP ensures that the mitigation measures and techniques are available at the time of construction taking account of any possible changes to the extent of the Annex 1 features following pre-construction surveys;
  - 6.2.5 the outline SIP will be updated prior to construction to reflect latest targets, guidance, pre-construction survey data and available evidence from other projects where possible.
- 6.3 The principles and purposes of the draft HHW SAC SIP are fully in line with those principles and purposes which were incorporated into the SIP for the SNS SAC in relation to harbour porpoise which was accepted by the Secretary of State for East Anglia THREE as providing an appropriate framework for approving and securing any mitigation required post consent, and enabling the Secretary of State to conclude that there will not be an adverse effect on the integrity of the site.

## APPENDIX 1

### The East Anglia THREE Recommendation to the Secretary of State

(Emphasis added)

1. In the Planning Inspectorate's recommendation to the Secretary of State for Business Energy and Industrial Strategy (BEIS) dated 28 March 2017 ("the Recommendation") the Examining Authority (ExA) refers to the SNS SAC SIP in the following terms:

"6.7.32 During the Examination, following discussion at the first Environmental Matters ISH, the Applicant agreed to provide a dSIP. A dSIP was submitted at D4 [REP4-013] in support of the HRA assessment and updated at D7 [REP7-029 and REP7-030 (tracked changes)]. **The dSIP is a certified document** under Article 32(1)(t) of the Applicant's final dDCO [REP8-022]. Provision of a final SIP is **secured through condition 13(2)** of Schedules 10 to 13 (the Generation and Transmission Assets DMLs) of the ExA's recommended DCO (Appx D). The wording of Condition 13(2) states:

"(2) *In the event that driven or part-driven pile foundations are proposed to be used, the licenced activities, or any phase of those activities must not commence until an East Anglia THREE Project Southern North Sea pSAC Site Integrity Plan which accords with the principles set out in the In Principle East Anglia THREE Project Southern North Sea pSAC Site Integrity Plan has been submitted to the MMO and the MMO is satisfied that the plan, provides such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2007 Regulations) of a relevant site, to the extent that harbour porpoise are a protected feature of that site.*"
2. With regard to the purpose of the dSIP, the Recommendation states

"6.7.34 The purpose of the dSIP was to set out the Applicant's **approach to delivering any mitigation or management measures** to ensure the avoidance of significant disturbance of harbour porpoise according to the pSAC conservation objectives, and therefore allow the conclusion of "*no adverse effect beyond reasonable scientific doubt*" on the pSAC [REP4-013]."
3. With regard to the views of NE and MMO on the approach of using such a condition combined with a freestanding SIP, the Recommendation states

"6.7.37 In response to an oral question from the ExA asking whether NE was content with HRA issues for the pSAC, NE stated [REP4-029] that it:

*"(S)upports the Applicant following the Hornsea Offshore Wind Farm Project 2 TWO 'condition 8' approach with some amendments. Namely a freestanding In Principle Site Integrity Plan (IPSIP) **which will be a certified document** referred to in the DML **which will list such mitigation measures** as necessary to secure no AEol."*

6.7.38 In Appendix 1 of its post-hearing submission [REP4-029], NE confirmed that it:

*"(W)elcomes the Southern North Sea pSAC Site Integrity Plan as a stand-alone document to set out the **approach to delivering any management or mitigation measures** that are required to avoid significant disturbance of harbour porpoise and allow the conclusion of no adverse effect on site integrity to be made in relation to the Southern North Sea pSAC from the East Anglia THREE Project."*

6.7.39 The MMO [REP4-032] stated that it concurred with NE in relation to the purpose of the MMMP and that the proposed SIP would more appropriately address disturbance. It

generally supported the Applicant's approach in respect of the SIP providing a **framework for delivery of mitigation.**"

- 6.7.40 At the point of issue of the REIS [PD-021], NE [REP5-009] had confirmed that it was satisfied that the Applicant's draft wording of Condition 13 in the relevant dMLs adequately secured the SIP and that the approach taken by the Applicant in respect of the dSIP would be sufficient to avoid an adverse effect on the integrity of the SMS PSAC. The MMO [REP5-008 and REP6-021] stated that it was content that the drafting of Condition 13 (2) of the relevant dMLs secured the requirement for the Applicant to submit the SIP to the MMO for approval."
4. With regard to the statements of Common Ground with NE and the MMO, the Recommendation states:
- "6.7.49 The updated SoCG with NE [REP7-023] agreed that condition 13(2) in the DMLs (Schedules 10 to 13) secures mitigation to avoid AEol of the SNS pSAC and that the SIP also **provides a framework** to secure the development and **implementation of specific mitigation measures** (if required) to avoid adverse effects on integrity.
- 6.7.50 The updated SoCG with the MMO [REP7-021 and REP7-022] records that it is agreed that condition 13(2) of the relevant DMLs **provides an appropriate framework** for approving and securing any mitigation required post-consent under the SIP for the Proposed Development. The SoCG also records that it is noted by both parties and agreed that the MMO's comments related to paragraph 48 of the SIP in its D5 response [REP5-008] have not been addressed. This is because they are comments requesting the ExA or SoS to determine who is best placed to regulate scheduled piling across multiple developments."
5. In the ExA's findings in respect of the SNS pSAC the Recommendation states:
- "6.7.71 Greater concern was expressed throughout the Examination about in-combination impacts of noise as in-combination assessments **include a large amount of uncertainty**. However, once again these concerns are driven by the absence of final conservation objectives or management measures. Based on the evidence presented by all parties, the ExA is satisfied that AEol from the Proposed Development can be excluded when in-combination with other plans and projects, provided again that appropriate mitigation measures are implemented.
- 6.7.72 The ExA's conclusions depend heavily on the **mitigation measures delivered** through the MMMP and SIP being adequate and **using best technologies available at the time of construction**. We are content that these protocols offer sufficient security that adequate mitigation would be delivered to avoid AEol. We are also content that the MMMP and the SIP are adequately secured through the DMLs in the ExA's recommended DCO (Appx D)."

## APPENDIX 2

### The East Anglia THREE Habitats Regulations Assessment

1. In the Record of the Habitats Regulations Assessment dated 7 August 2017 (HRA) which accompanied the EA3 decision of the Secretary of State, the SIP is considered in Section 11 on the Southern North Sea SAC. For the Alone Assessment it is stated:
  - "11.33 To address this issue [assessment of disturbance and displacement of harbour porpoise as a result of increased noise levels from piling] the Applicant agreed to provide a draft Site Integrity Plan (dSIP). A first draft was submitted at Deadline 4 [REP4-013] and the document was updated at Deadline 7 [REP7-029] to take account of comments from Interested Parties.
  - 11.34 The purpose of the dSIP is to set out the Applicant's **approach to delivering any mitigation or management measures** to ensure the avoidance of significant disturbance of harbour porpoise according to the site's conservation objectives, and therefore allow the conclusion of "*no adverse effect beyond reasonable scientific doubt*" on the site [REP4-013]. The dSIP **will be updated prior to construction** to reflect any further guidance received from JNCC and NE with regards to the site's conservation objectives and management measures and once final construction methods have been confirmed [REP4-013]. The dSIP **puts forward a number of potential mitigation measures** such as: a schedule to control piling events; the use of alternative foundation methodologies; and noise mitigation systems.
  - 11.35 The dSIP **is a certified document** under Article 32 of the DCO and the final plan is **secured through condition 13(2)** of Schedules 10 to 13 (the Generation and Transmission Assets DMLs) of the DCO. The wording of condition 13(2) states:

*"(2) In the event that driven or part-driven pile foundations are proposed to be used, the licenced activities, or any phase of those activities must not commence until an East Anglia THREE Project Southern North Sea cSAC Site Integrity Plan which accords with the principles set out in the In Principle East Anglia THREE Project Southern North Sea pSAC Site Integrity Plan has been submitted to the MMO and the MMO is satisfied that the plan, provides such mitigation as is necessary to avoid adversely affecting the integrity (within the meaning of the 2007 Regulations) of a relevant site, to the extent that harbour porpoise are a protected feature of that site."*
  - 11.36 It is noted that the final SoCG between the Applicant and NE states [REP7-023]:

*"It is agreed by both parties that condition 13(2) in the DMLs (Schedules 10 to 13) secures mitigation to avoid AEOI [Adverse Effect on Integrity] and that the SIP also **provides a framework** to secure the development and implementation of specific mitigation measures (if required) to avoid AEOI."*
  - 11.37 It is also noted that in a SoCG with the MMO [REP7-021], it was agreed that "*condition 13(2) of the relevant DMLs, **provide an appropriate framework** for approving and securing any mitigation required."*
2. The HRA refers to the conclusions of the ExA recommendation as follows
  - "11.41 In its concluding recommendation the ExA stated that it "*is satisfied that, when considering the draft conservation objectives for harbour porpoise, AEoI from the Proposed Development alone can be excluded, provided that, once formal guidance is provided by the SNCBs, appropriate mitigation measures are implemented."*
  - 11.42 The Secretary of State has considered this recommendation along with the representations made by the Applicant, NE, MMO, WDC and TWT. The Secretary of State is satisfied that, the potential disturbance and displacement of harbour porpoise as a result of increased noise levels during construction and operation as a result of the



Project alone, would not represent an adverse effect upon the integrity of the SNS cSAC. For this conclusion he places particular weight on the mitigation secured in condition 13(2) of the DMLs in Schedules 10-13, which allows for mitigation to be developed, where necessary, in view of confirmed construction methods and finalised guidance from the SNCBs."

3. For the In-Combination Assessment the SIP is referred to as follows:

"11.65 As described above, the Applicant has secured the provision of a SIP in Condition 13 (2) of the dMLs in Schedules 10 to 13. **The final SIP will be produced prior to construction** to reflect any further guidance received from JNCC and NE with regards to the site's conservation objectives and management measures and **once final construction methods have been confirmed** (REP4-013). As already described, the Applicant provided a dSIP during the Examination the purpose of which is to set out the Applicant's **approach to delivering any mitigation** or management measures to ensure the avoidance of significant disturbance of Harbour Porpoise according to the site's conservation objectives, and therefore allow the conclusion of "*no adverse effects beyond reasonable scientific doubt*" on the site [REP4-013]. The dSIP **puts forward a number of a potential mitigation measures** such as: a schedule to control piling events; the use of alternative foundation methodologies; and noise mitigation systems."

"11.66 In the SoCG with the Applicant, NE noted that "*that Condition 13 (2) in the dMLs (Schedules 10 to 13) secures mitigation to avoid AEOI and that **the SIP also provides a framework** to secure the development and implementation of specific mitigation measures (if required) to avoid AEOI*" [REP7-023]."

"11.69 Based on the evidence presented by all parties, the ExA was satisfied that an AEOI, from the Project in-combination with other plans or projects, could be excluded. This recommendation relied upon the implementation of the MMMP and the SIP post-consent."

"11.70 The Secretary of State has considered the representations made by the Applicant, NE, WDC, TWTs and the recommendation as made by the ExA. The Secretary of State is satisfied that, the potential disturbance and displacement of Harbour Porpoise as a result of increased noise levels during construction and operation as a result of the Project in-combination with other plans or projects, would not represent an adverse effect upon the integrity of the SMS cSAC. For this conclusion he places particular weight on the mitigation secured in Condition 13 (2) of the dMLs in Schedules 10 to 13, which allows for mitigation to be developed, where necessary, **in view of confirmed construction methods and finalised guidance from the SNCBs.**"