THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010

Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms

Appendix D2 to the Natural England Deadline 8 Submission

Natural England's Advice on the Marine Mammals Technical Note and Addendum Revision B [REP7-057]

For:

The construction and operation of the Sheringham Shoal Extension and Dudgeon Extension Offshore Wind Farms located approximately 16km and 27km respectively from the Norfolk Coast in the Southern North Sea.

Planning Inspectorate Reference: EN010109

17th July 2023

Appendix D2 - Natural England's Comments on the Applicant's Marine Mammal Technical Note and Addendum (Revision B) REP7-057

1. Summary of Advice

Natural England agrees with the Applicant's position of no Adverse Effect on Integrity of the harbour seal feature of the Wash and North Norfolk Coast SAC, and no significant impact to bottlenose dolphin (in EIA terms).

2. Overarching response - Table 3-1

ID 1 (and 4): The Applicant has provided sufficient justification to demonstrate that single piling is likely to be the worst-case scenario for the purposes of population modelling. Natural England has no outstanding concerns related to this comment.

ID1 (and 2, 7): We note that the Applicant has undertaken population modelling for bottlenose dolphin. Detailed comments on this have been provided below.

ID3, 4, 5, 6, 7, 8, 9, 10: No response needed. IDs 11-13 are the MMO's comments (from Cefas), therefore, Natural England defers to the MMO for response to these points.

3. Bottlenose dolphin population modelling

Population parameter inputs

We infer that the population parameter inputs, detailed by the Applicant in Table 6-7, correspond to those that are in the current helpfile for bottlenose dolphin – all other MUs (based on Sinclair *et al.* 2020). We consider that these population parameters are appropriate given the Management Unit (MU) being assessed (Greater North Sea). The reference population size (Table 6-8) is based on the latest information (JNCC, 2023).

The number of bottlenose dolphin to have Permanent Threshold Shift (PTS) or to be Disturbed (Table 6-9) corresponds to the information in the Environmental Statement (ES) (detailed Tables 10-31 and 10-35).

Model outputs and determining significance – Project alone (Section 6.1.2.3)

The Applicant has presented the results of the population modelling for bottlenose dolphin from project-alone impacts in Table 6-13. The results demonstrate that there would be no discernible change in the bottlenose dolphin population from project-alone impacts at any of the forecast intervals. Therefore, there would be no significant impact to the bottlenose dolphin population from project-alone impacts.

Model outputs and determining significance - Cumulative Disturbance from Offshore Wind (Section 6.2.1.5)

The Applicant has presented the results of the population modelling for bottlenose dolphin from cumulative disturbance from offshore wind piling impacts in Table 6-40. The results show that the bottlenose dolphin population would decrease over the lifetime of the project. The population is predicted to have a decline of 3.67% by End 2031, equivalent to an annual decline of 0.754%. This is below the threshold for a significant impact presented by the Applicant and considered appropriate by Natural England (an (additional) 1% annual decline during offshore wind piling works). Therefore, there would be no significant impact to the bottlenose dolphin population from cumulative offshore wind disturbance impacts.

In summary, Natural England is satisfied that the population modelling is sufficient for us to agree with the Applicant's conclusion of no significant impact (in EIA terms) on bottlenose dolphin from the project alone or cumulatively with other offshore wind farms.

Disturbance to harbour seal at Blakeney Point (Section 7.1.2.3.3)

The Applicant has provided further information on the overlap of 5dB noise contours with Blakeney Point. They present that, based on underwater noise modelling for the SEP E location, there is no overlap between the 145 dB contour and Blakeney Point. The Applicant considers that *"seal species shows no reaction to piling noise at less than 145dB"*. Natural England does not agree with this statement. Though we note that 145 dB is the threshold for a significant disturbance as defined by Whyte *et al.* (2020), the authors did record a decrease in the mean density of seals in areas exposed to piling noise down to 120 dB. In the 5dB contours between 145 dB and 120 dB, a mean decrease in seal density of 8.43% to 29.4% was predicted. We therefore consider that there could still be some level of in-water disturbance around the Blakeney Point site.

We also note the Applicant's point that the noise levels around Blakeney Point may be slightly higher (i.e., higher noise contours slightly nearer) than presented from the modelling for the SEP E location, as there are piling locations closer to Blakeney Point than the SEP E location. Whilst the Applicant considers that the 145 dB contour would not overlap Blakeney Point, even at the closest location, they have not undertaken underwater noise modelling specifically to evidence this. This gives further weight to the view that some in-water disturbance around Blakeney Point may occur.

It should also be noted that the designated area of the Wash and North Norfolk Coast SAC extends out from the coast and at its closest point is 8.3km from SEP. Unfortunately, the Applicant has not presented the noise contours with the boundary of the Wash and North Norfolk Coast SAC so we cannot be certain on what level of noise may persist into the SAC. Comparing Figures 3.4 and 4.5 by eye, we consider that there is overlap between the SAC boundary and the 145 dB contour (where a significant change in density may be expected, equivalent to disturbance of on average 36.4% of individuals).

In summary, Natural England consider that there is the potential for in-water disturbance of harbour seals within the SAC due to piling noise. We also consider that some level of disturbance may occur as far as the waters immediately surrounding Blakeney Point, a pupping site in the SAC. This confirms that it was necessary for the Applicant to have carried out population modelling to test whether there could be adverse effects on SAC harbour seal during the construction phase, due to piling resulting in potentially disturbing noise levels.

This modelling has already identified that up to 396.6 harbour seals from the Wash and North Norfolk Coast SAC may be disturbed from piling at SEP, and similarly 112.3 animals disturbed from piling at DEP. Though not without caveats or limitations, the population modelling provides assurance that this level of disturbance would not cause a discernible population-level effect.

In summary, Natural England is satisfied that the population modelling is sufficient for us to agree with the Applicant's conclusion of no Adverse Effect on Integrity to the Wash and North Norfolk Coast SAC harbour seal feature. This specifically updates our position on project-alone impacts due to the disturbance pathway. We also conclude that there is unlikely to be an AEoI to this feature in-combination with other plans or projects.

Nevertheless, in the light of the above, Natural England strongly support the Applicant's consideration of impacts to seals as a focus for post-consent monitoring, particularly harbour seals associated with the SAC.