



THE PLANNING ACT 2008

THE INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES
2010

Dogger Bank South Offshore Wind Farm

Appendix J9 to the Natural England Deadline 9 Submission

Natural England's comments on the In-Principle Monitoring Plan [REP7-116] and other associated monitoring.

For:

The construction and operation of the Dogger Bank South (East and West) Offshore Wind Farm located approximately 100-122 km off the North East Coast in the Southern North Sea.

Planning Inspectorate Reference EN010125

10th July 2025

Appendix J9 – Natural England’s Advice on the In-Principle Monitoring Plan and other associated monitoring at Deadline 9

In formulating these comments, the following documents have been considered:

- [REP7-116] 8.23 In-Principle Monitoring Plan (Revision 5) (Tracked)

1. Introduction

Natural England previously provided advice relating to monitoring requirements for Dogger Bank South (DBS) in Appendix J of our Deadline 3 submission [REP3-056] and in response [REP7-151] to the Examining Authority’s (ExA) recommended amendments to the draft Development Consent Order (DCO) [PD-028]. As advised at Deadline 3 [REP3-056], Natural England considers the scope of the IPMP including hypotheses to be tested by monitoring should be agreed as part of the consenting phase. Natural England advises the IPMP should consider what the residual concerns and evidence gaps of the Environmental Impact Assessment (EIA) and/or Habitat Regulations Assessment (HRA) are, rather than relying solely on the outcomes of the EIA and HRA when determining the need for monitoring. Having reviewed the Applicant’s updated In-Principle Monitoring Plan (IPMP) [REP7-116], we provide an update below on any outstanding areas of monitoring required for each thematic area that we consider not currently to be secured.

Natural England welcomes the Applicant’s inclusion that where monitoring results show a greater impact than those assessed in the ES, an adaptive management approach will be taken and proposals for solutions and/or additional monitoring will be submitted to MMO and the relevant Statutory Nature Conservation Body (SNCB). We are supportive of this; however, it is unclear if the Applicant is committing to undertaking any remedial actions identified. Natural England advise that the potential for remedial actions should be appropriately secured and note that monitoring condition amendments have been recommended to address this (see Section 2.1).

2. Detailed advice

2.1. DCO

Natural England has previously raised concerns [RR-039] that the draft DCO/dML does not secure the provision of a named monitoring plan for each thematic area where monitoring is required. The Applicant’s IPMP currently only explicitly states that a dedicated plan will be produced for ornithology monitoring. To address this, Natural England has liaised with MMO to agree recommended updates to the monitoring conditions included in the DCO/dML, which also consider the recommendations made by the ExA [PD-028]. These will be submitted by MMO at Deadline 9 and Natural England has therefore not repeated them here.

2.2. Marine Processes

Monitoring of secondary scour has only been included for wind turbines and offshore platforms. We advise that this should be extended to also include cable protection if installed on/adjacent to Dogger Bank SAC, within the nearshore zone and in the near vicinity to Smithic Bank and Holderness Inshore MCZ.

2.3. Benthic ecology

Natural England welcomes that the Applicant has included provision for monitoring of drill disposal mounds in the IPMP. However, we note that this only applies where drill mounds persist above 3 metres from the surrounding seabed. We highlight that the DCOs consented for Dogger Bank Creyke Beck A&B and Teesside A&B (as was) required that should drilling be utilised to install piled foundations, “*appropriate surveys to determine change in size and form of the drill disposal mounds over the lifetime of the authorised scheme*” were necessary regardless of the size of the disposal mounds. We advise that the same should apply to DBS.

2.4. Fish and Shellfish

2.4.1. Sandeel abundance

The Applicant has proposed pre- and post-construction habitat sampling to validate statements made regarding habitat suitability and recoverability for sandeel. However, no reference is made to monitoring changes to sandeel abundance and/or distribution resulting from the direct loss of spawning habitat due to infrastructure presence. Natural England acknowledge that it may not be possible to monitor abundance via traditional means within Dogger Bank SAC (i.e. trawl surveys), however we advise that the IPMP should retain scope for monitoring abundance and distribution as alternative methods may be available (e.g. acoustic receivers).

2.4.2. Heat impacts from cables.

An assessment has not been provided for localised heating of sediment from inter-array cables and possible impacts to high/very high potential sandeel habitat. As detailed in Appendix E8 of our Deadline 8 advice [AS-184], the Applicant has cited research (Emeana *et al.*, 2016, [REP6-052]) that suggests that heat transfer from high voltage cables can occur to distances that would overlap with habitat utilised by sandeel. Natural England therefore maintains our previous advice that monitoring to validate the thermal radius of heat transfer from inter-array cables buried in high potential sandeel habitat is secured in the In-Principle Monitoring Plan and/or DCO/dML.

2.4.3. Indirect effects

The Applicant has not proposed monitoring to validate predicted impacts on linked receptor groups (i.e. predator species) as a result of impacts to benthic habitats and localised prey populations from loss of spawning habitat, which may have implications over a wider area beyond where predators are directly excluded. We acknowledge the Applicant's Response to Deadline 7 documents [REP8-043], but our advice remains that monitoring should be undertaken to fill evidence gaps with respect to this pathway. We direct the Applicant to outputs produced by JNCC (Report 767, 2024¹) and the PrePARED project² which provide recommendations for future work targeting both birds and mammals in relation to prey availability. Please see Appendix E5 [RE5-056], E8 [AS-184] and N7 [REP7-152] for further detail.

2.5. Marine Mammals

No monitoring has been proposed for marine mammals beyond that required to ensure the construction mitigation included in the Marine Mammal Mitigation Protocol is correctly implemented. There has been no consideration in the IPMP of the areas of the assessment where assumptions have been made and where the project could contribute to filling evidence gaps or validating the Project's impacts.

2.5.1. Underwater Noise (Operation)

We highlight that it is acknowledged in the Underwater Noise Modelling Report [AS-138], that the turbine sizes used to inform operational noise modelling are considerably smaller (0.2-6.15 MW) than those to be used at DBS (15-26.5 MW), and that no empirical data is available for turbines of this size. We therefore consider there to be a significant gap in knowledge of the operational underwater noise levels of wind turbine generators of this size and advise that monitoring of noise levels is secured to validate the Project's predictions regarding operational impacts and inform future assessments across the OWF industry. We note consideration of this has been included in MMO's DCO/dML condition recommendations.

2.5.2. Dolphin distributions

The characterisation of bottlenose dolphin baseline distribution relies on the assumption that their distribution along the northeast English coast is the same as in Scotland. Natural England considers this a significant assumption as it directly affects the prediction of the number of animals potentially

¹ Ruffino, L. & Black, J. 2024. Interactions between black-legged kittiwakes and their fish prey in the North Sea. Report of the JNCC-Ørsted workshop, Edinburgh, October 2023. JNCC Report 767. JNCC, Peterborough, ISSN 0963-8091. <https://hub.jncc.gov.uk/assets/9627551b-3805-4bcc-9db8-bbad34841537>

² Fernandez-Betelu, O., Iorio-Merlo, V., Graham, I. M., Benhemma-Le Gall, A., Cheney, B.J., Payo-Payo, A., Thompson, P.M. (2024). PrePARED Task 4.1 – Using modelled sandeel distribution maps to characterise spatio-temporal variation in the occurrence and foraging behaviour of harbour porpoises around offshore windfarms. PrePARED Report, No. 001. March 2024

affected by the Project. We therefore recommend the Applicant undertake post-consent monitoring to provide evidence to support the use of this assumption in OWF impact assessments.

2.5.3. Indirect effects

As highlighted in Section 2.4.3 above, the Applicant has not proposed any monitoring of impacts to linked receptor groups due to impacts on prey species. Natural England advises that the scope of monitoring should be expanded to investigate and/or validate these impacts further, particularly with the significance of the arrays being located in both Dogger Bank SAC and the Southern North Sea SAC. Natural England suggest monitoring is undertaken to investigate foraging activity within the array areas, through the deployment of hydrophones or F-Pods.

2.6. Ornithology

2.6.1. Connectivity

Natural England notes that the Applicant has not included monitoring to determine connectivity between the Projects and FFC SPA in the IPMP. We note that connectivity is a key area of uncertainty in the assessments regarding how both collision and displacement impacts of the Projects are apportioned to colonies. Natural England advises monitoring to investigate connectivity should be included in the IPMP.

2.6.2. Habituation

Natural England welcomes the inclusion of displacement effects in the Applicant's proposed monitoring. Natural England advises that the Applicant also include testing for habituation to displacement effects in the IPMP, given that the extent to which habituation may or may not occur with displacement effects is a key source of uncertainty.

2.6.3. Indirect effects

Please see Section 2.4.3 for previously detailed monitoring opportunities to investigate the impacts of prey impacts on ornithology receptors.