

**RWE Renewables UK Dogger Bank
South (West) Limited**

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South (East) Limited**

**Dogger Bank South Offshore
Wind Farms**

**The Applicants' Response to the Marine
Management Organisation's Deadline 9
Document**

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Glossary

Term	Definition
Array Areas	The DBS East and DBS West offshore Array Areas, where the wind turbines, offshore platforms and array cables would be located. The Array Areas do not include the Offshore Export Cable Corridor or the Inter-Platform Cable Corridor within which no wind turbines are proposed. Each area is referred to separately as an Array Area.
Array cables	Offshore cables which link the wind turbines to the Offshore Converter Platform(s).
Baseline	The existing conditions as represented by the latest available survey and other data which is used as a benchmark for making comparisons to assess the impact of the Projects.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Effect	Term used to express the consequence of an impact. The significance of an effect is determined by correlating the magnitude of the impact with the value, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
Environmental Impact Assessment (EIA)	A statutory process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information, which fulfils the assessment requirements of the EIA Directive and EIA Regulations, including the publication of an Environmental Statement (ES).
Environmental Statement (ES)	A document reporting the findings of the EIA and produced in accordance with the EIA Directive as transposed into UK law by the EIA Regulations.
Habitats Regulations Assessment (HRA)	The process that determines whether or not a plan or project may have an adverse effect on the integrity of a European Site or European Offshore Marine Site.
Impact	Used to describe a change resulting from an activity via the Projects, i.e. increased suspended sediments / increased noise.

Term	Definition
Landfall	The point on the coastline at which the Offshore Export Cables are brought onshore, connecting to the onshore cables at the Transition Joint Bay (TJB) above mean high water.
Nearshore	The zone which extends from the swash zone to the position marking the start of the offshore zone (~20m).
Offshore Development Area	The Offshore Development Area for ES encompasses both the DBS East and West Array Areas, the Inter-Platform Cable Corridor, the Offshore Export Cable Corridor, plus the associated Construction Buffer Zones.
Offshore Export Cable Corridor	This is the area which will contain the Offshore Export Cables between the Offshore Converter Platforms and Transition Joint Bays at the landfall.
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Examples of Receptors include species (or groups) of animals, plants, people (often categorised further such as 'residential' or those using areas for amenity or recreation), watercourses etc.
Sediment	Particulate matter derived from rock, minerals or bioclastic matter.
Suspended sediment	The sediment moving in suspension in a fluid kept up by the upward components of the turbulent currents or by the colloidal suspension.
The Applicants	The Applicants for the Projects are RWE Renewables UK Dogger Bank South (East) Limited and RWE Renewables UK Dogger Bank South (West) Limited. The Applicants are themselves jointly owned by the RWE Group of companies (51% stake) and Masdar (49% stake).
The Projects	DBS East and DBS West (collectively referred to as the Dogger Bank South Offshore Wind Farms).
Wind turbine	Power generating device that is driven by the kinetic energy of the wind.

Acronyms

Term	Definition
AEol	Adverse effects on site integrity
dB	Decibel
DBS	Dogger Bank South
DCO	Development Consent Order
DML	Deemed Marine Licence
EIA	Environmental Impact Assessment
ES	Environmental Statement
ExA	Examining Authority
HRA	Habitats Regulations Assessment
IHLS	International Herring Larvae Survey
IPMP	In Principle Monitoring Plan
MMO	Marine Management Organisation
PEIR	Preliminary Environmental Information Report
SAC	Special Area of Conservation
SNCB	Statutory Nature Conservation Body
SoS	Secretary of State
UWN	Underwater Noise

1 Introduction

1. This document presents the Applicants' responses to the Marine Management Organisation's (MMO) Deadline 9 document.
2. The MMO provided the Applicants with this Deadline 9 submission via email on 10th July 2025. This response included additional requests for information from the MMO and changes to the MMO's previous position on topics such as the proposed herring and sandeel restrictions, which the Applicants had previously understood to have been largely resolved prior to Deadline 8.
3. The Applicants also understand that the MMO's Deadline 9 response did not reach the Planning Inspectorate due to a technical issue and as such was never published on the Planning Inspectorate's website for public viewing and nor was it considered by the Examining Authority. In light of this, the Applicants have provided responses to the MMO's comments in **Table 1-1**.

Table 1-1 – The Applicants' Response to the MMO's Deadline 9 Document

I.D.	Marine Management Organisation's Response	Applicants' Response
1.1	<p>1. Additional Closing Statement</p> <p>1.1 General Comments</p> <p>The MMO provided comments in Section 1 of REP8-048.</p> <p>The issues that remain outstanding are:</p> <ul style="list-style-type: none">• Transfer of Benefit – Article 5 – The MMO still maintains that reference to the DML's Article 5 should be removed. Please see Section 1.2 of REP2-061 for more information and note Section 1.8 of REP8-048.• Force Majeure - The MMO notes this is likely to be not agreed by the end of Examination. The MMO's position is detailed in Section 1.3 of REP2-061.• Determination dates - Please see Section 1.7 in REP7-148.• Fisheries back calculations & herring Spawning restriction plan (Export cable corridor and piling restrictions – Please see Section 3 in REP8-048 and the additional comments on the conditions in Section 1.2 and 1.3 of this response. <p>The MMO understands there is disagreements with NE and the Applicants in relation to monitoring and cable protection. As these could link to the DML please find comments on Monitoring in Section 1.4 of this document and Cable protection in Section 5 of REP8-048.</p>	No response is required.
1.2.1	<p>1.2 Closing statement on the Herring restriction for noise (piling)</p> <p>This matter is relating to the impact of noise from piling. There is no disagreement on refinement of the seasonal restriction for piling due to the wider impacts and 1 August to 31 October inclusive is agreed between the Applicants and the MMO, noting the Applicants position is without prejudice as they do not believe there should be a restriction.</p>	<p>During Examination, a key disagreement was discussed between the Applicants and the MMO regarding the potential noise impacts caused by piling on herring during their spawning season (1st August – 31st October inclusive).</p> <p>To mitigate these effects, the MMO and Natural England have pressed the Applicants to secure additional mitigation through the inclusion of temporal restrictions on piling activity between August and October (inclusive). The Applicants do not agree that the assessment work undertaken in relation to this matter supports an argument for the adoption of mitigation and noted the impacts that the suggested restriction could have on the timely delivery and business case for the Projects as part of the Examination. The issues relating to this matter are summarised in Summary of Herring Noise Impact Discussions During Examination [REP7-134], and in section 5.5 of The Applicants' Closing Statements [REP8-042].</p> <p>However, given the differing positions on the need for a restriction, the Applicants provided 'without prejudice' wording for a condition that could be imposed if required by the Secretary of State (SoS).</p>

I.D.	Marine Management Organisation's Response	Applicants' Response
		<p>The current 'without prejudice' noise restriction wording in the Draft DCO (Revision 12) [REP9-003] states:</p> <ol style="list-style-type: none"> (1) <i>No piling activity can commence within Work Nos. 1A and 4A during the herring spawning season until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.</i> (2) <i>The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.</i> (3) <i>The herring spawning piling restriction plan must present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.</i> (4) <i>If the updated underwater noise modelling referred to in sub-paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work Nos. 1A and/or 4A will impact the area shoreward of the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.</i> (5) <i>Any piling activity within Work Nos. 1A and 4A during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) or in accordance with any approval given by the MMO under subparagraph (4) above.</i> <p>In practice, this means that for the Applicants to avoid a piling restriction during the herring spawning season, they must demonstrate that the 135dB behaviour threshold contour (based on underwater noise modelling of the final project design), would remain seaward of the Herring Spawning Noise Restriction Boundary during construction (see 'Without Prejudice' Herring Spawning Plan (Revision 2) [REP9-020]). There were disagreements around the location of the Herring Spawning Noise Restriction Boundary which were unresolved by the end of Examination.</p> <p>Following Examination, the Applicants have continued to engage with the MMO during the Examining Authority's (ExA) recommendation period, with meetings being held on 5th August 2025 and 15th September 2025 to discuss the MMO's Deadline 8 / 9 responses and reach agreement on solutions to the concerns raised therein.</p> <p>The Applicants provided the MMO with a figure and explanatory note regarding the Herring Spawning Plan (see Appendix A). The figure in Appendix A shows that to avoid an overlap of the 135db behaviour threshold contour with the Herring Spawning Noise Restriction Boundary, the Applicants must apply a minimum 7db of noise reduction measures. This results in a 'mitigation corridor' with a minimum distance of 38km between the coast and the 135dB contour. To put this into context, the proposed precautionary 'migration corridor' is larger than the width of the Strait of Dover, through which the Downs herring spawning stock migrates to reach spawning grounds within the English Channel.</p> <p>The MMO / Cefas confirmed via email on the 24th September 2025 that they were content with the location of the Herring Spawning Noise Restriction Boundary, with a minor edit to the condition wording in the Draft DCO requested, to reference the minimum distance of 38km.</p>

I.D.	Marine Management Organisation's Response	Applicants' Response
		Although the Applicants and the MMO disagree on the requirement of a noise restriction, a joint position statement on the issue has been developed (The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]), with both parties demonstrating their agreement of the revised without prejudice noise restriction condition wording presented within the document.
1.2.2	1.2.2 Herring migrates through the North Sea in a north-to-south direction during their spawning season. The range of effect for underwater noise (UWN) and vibration from piling can cover very large areas and UWN modelling has frequently been shown to predict large swathes of the North Sea to be affected by UWN from piling. With this in mind, it is understood that UWN from piling can cause behavioural responses in fish and act as an acoustic 'barrier' to fish movement and migration. In the case of herring, which are highly sensitive to noise and vibration, and rely on specific spawning habitat on which to lay their eggs, there is potential that these acoustic 'barrier' effects may hinder herring migration, preventing them from reaching their spawning grounds. The MMO would highlight that implementing a piling restriction based on a 'peak' spawning period, is futile if the herring have not been able to migrate to their spawning grounds in the first place.	The requirement for a migration corridor is acknowledged and has been discussed during meetings held between the Applicants and the MMO in meetings post-examination (5/08/25 & 15/09/25). Appendix A indicates that if the 135dB behaviour threshold contour (based on underwater noise modelling of the final project design) is seaward of the proposed Herring Spawning Noise Restriction Boundary this will result in a minimum 38km distance between the coast and the 135dB contour. This distance increases rapidly to both the north and south of Flamborough Head. Thus, if the without prejudice condition were applied, a significant migration corridor beyond the reaches of the 135db contour would need to be maintained in order for piling during the restricted period to continue. Notwithstanding the above, it should be noted that there is no evidence to suggest that noise at 135db would act as any kind of acoustic barrier to herring migration.
1.2.3	The Applicants have included Condition 30 on a without prejudice basis within the relevant DMLs (noting the Works number changes depending on the Schedule) (REP7-011). The MMO highlighted within REP7-148 that the MMO was largely content with the conditions, dependant on the documents that were referred to within the conditions being agreed.	The Applicants note that the Without Prejudice Herring Spawning Plan (Revision 2) [REP9-020] has been agreed with MMO post-examination. A minor amendment to the wording of the relevant without prejudice condition in the Draft DCO has been requested by the MMO, to incorporate a reference to the minimum distance of 38km (shown in Appendix A) between the coast and the 135dB contour.
1.2.4	The MMO provided detail technical comments within REP8-048 and advised that we were not content with the Herring Spawning Noise Restriction Boundary within the Herring Spawning Plan (REP7-135).	In addition, a joint position statement has been developed (The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]), with both parties demonstrating their agreement with the revised without prejudice noise restriction condition wording presented within the document.
1.2.5	As per Figure 2.1 in REP5-042 (Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic herring spawning grounds) this shows the worst case scenario with unmitigated piles. Figure 2.2 showed the 'Extent of preferred and marginal potential spawning habitat for Atlantic herring in the vicinity of the Dogger Bank South Offshore Windfarms overlaid with contours associated with revised and original monopiling locations'. The Noise Restriction Boundary line does not sit along the border of the preferred and marginal potential spawning habitat. The use of the terms 'preferred' and 'marginal' only refers to the types of sediment that herring spawning on (e.g. gravel & sandy gravel = preferred, gravelly sand = marginal). To be clear, the maps are 'heat' maps comprised of several layers of data including IHLS data and sediment (PSA data). Each data layer is associated with a scoring method, and when the scores of each data layer are combined, an overall 'confidence' score can be given. This gives some areas higher or lower scores, which broadly equate to the different 'heat' colours of the map. So, the heat maps show high (red) confidence in spawning near Flamborough Head, and high to medium confidence (peach) for much of the offshore area, with small patches of low (blue) confidence further out. The Herring Spawning plan shows the Herring Spawning Noise Restriction Boundary along the border the habitat identified within Figure 2.2. Effectively the Applicant has drawn a boundary when there is no evidence linking this boundary to the impact pathway for UWN from piling.	The Herring Spawning Noise Restriction Boundary shown on the ' Without Prejudice' Herring Spawning Plan (Revision 2) [REP9-020] has been included where both confidence is identified as 'higher' (<0.05), and where sediment is considered to be either preferred or marginal. In areas where only one or neither of these conditions are met, the likelihood of herring spawning occurring is greatly reduced. The region of medium (peach) confidence indicated is a result of the presence of the International Herring Larvae Survey (IHLS) (general) data layer, which is a polygon surrounding all IHLS sampling locations that have sampled larvae. Whilst this data layer contributes to greater overall confidence, it is not considered reasonable to attribute the presence of this data layer to meaningfully increase the likelihood of herring spawning occurring beyond that of the low (blue) confidence regions further offshore. Therefore, the Herring Spawning Noise Restriction Boundary shown on the ' Without Prejudice' Herring Spawning Plan (Revision 2) [REP9-020] has been drawn along what is considered a realistic, evidence led, boundary dividing a distinct region of higher and lower potential for herring spawning. If the precautionary 135dB behaviour threshold contour (based on underwater noise modelling of the final project design), is seaward of the proposed Herring Spawning Noise Restriction Boundary this will result in a minimum distance of 38km between the coast and the 135dB contour, this distance increases rapidly to both the north and south of Flamborough Head. After continued engagement during the ExA's recommendation period, the MMO / Cefas confirmed via email on the 24 th September 2025 that they were content with a 38km migratory corridor (shown in Appendix A) at the shortest distance and the location of the Herring Spawning Noise Restriction

I.D.	Marine Management Organisation's Response	Applicants' Response
		Boundary. A joint position statement has been developed (The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]), with both parties demonstrating their agreement with the revised without prejudice noise restriction condition wording presented within the document.
1.2.6	Our main concern is that the Applicant cannot draw a physical boundary on the unmitigated noise impact.	<p>The Applicants are concerned that without determining an evidence led boundary relating to potential impacts of unmitigated noise on herring spawning grounds, any marine licence condition relating to this issue would be both complex and open to interpretation. A clear and enforceable condition – which is necessary to provide certainty to the Applicants as they develop plans for delivery over lead times which extend across several years and which cannot be altered without significant increases in costs and delays to programme a few months before the commencement of construction - necessitates a spatial element, which the Applicants have endeavoured to define using an evidence led approach. Should the MMO determine this approach to be inappropriate, it is imperative that an alternative, clear, enforceable, and evidence led approach is indicated.</p> <p>After continued engagement during the ExA's recommendation period, the MMO / Cefas confirmed via email on the 24th September 2025 that they were content with a 38km migratory corridor (shown in Appendix A) at the shortest distance and the location of the Herring Spawning Noise Restriction Boundary. A joint position statement has been developed (The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]), with both parties demonstrating their agreement with the revised without prejudice noise restriction condition wording presented within the document.</p>
1.2.7	The UWN behavioural extent issue can only be resolved through spatial refinement of the piling plan using a zoning plan. This may mean they can pile in the furthest parts of the array during the spawning season providing that modelling shows no overlap with areas of potential spawning habitat or through reducing the range of impact using noise abatement, the latter being the easier of the two.	<p>The Applicants acknowledge this. The Herring Spawning Noise Restriction Boundary shown on the 'Without Prejudice' Herring Spawning Plan (Revision 2) [REP9-020] has been produced based on information from preferred and marginal substrate and higher (<0.05) potential herring spawning grounds. This approach aims to establish how mitigation can be applied, if required, once final project design parameters have been finalised. The wording as provided by the Applicants in the 'without prejudice' conditions included in Draft DCO (Revision 12) [REP9-003] has been drafted to allow for zoning should it be request through referencing 'piling areas'. Notwithstanding this the Applicants note that agreement has been reached in relation to the wording of the without prejudice herring noise restriction and the details of the Without Prejudice Herring Spawning Plan (Revision 2) [REP9-020] with MMO since the close of Examination. This agreement is recorded within The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]. If the SoS believes that a restriction for piling noise should be imposed on the Projects to mitigate impacts to spawning herring the Applicants suggest the updated without prejudice wording included in The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6] should be imposed alongside the Without Prejudice Herring Spawning Plan (Revision 2) [REP9-020].</p>
1.2.8	The MMO would highlight that zoning mapping was done on Rampion 2 Offshore Wind Farm and this was submitted at the final deadline, therefore further Secretary of State (SoS) requests were required. On Rampion 2 the MMO and the Applicant did continue discussions during the Examining Authority (ExA) recommendation period to submit and agreed position during the SoS decision period and could do it on this occasion if the Applicants requested this.	<p>The Applicants have continued to engage with the MMO during the ExA's recommendation period, with meetings being held on 5th August 2025 and 15th September 2025 to discuss the MMO's Deadline 8 / 9 responses and reach agreement on solutions to the concerns raised therein.</p> <p>The Applicants have reached an agreed position with the MMO which is summarised in The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction</p>

I.D.	Marine Management Organisation's Response	Applicants' Response
		[document reference: 20.6] and has been submitted to SoS. If the SoS believes that a restriction for piling noise should be imposed on the Projects to mitigate impacts to spawning herring the Applicants suggest the updated without prejudice wording included in The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6] should be imposed alongside the Without Prejudice Herring Spawning Plan (Revision 2) [REP9-020].
1.2.9	<p>As the MMO is not content with the proposed boundary then the MMO is not content with the condition. The MMO has proposed an alternative condition below linking to worst case scenario figure rather than the herring spawning plan:</p> <p><i>[30.—(1) No piling activity can commence within Work Nos. 1A and 4A during the herring spawning season 1 August to 31 October inclusive until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.</i></p> <p><i>(2) The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.</i></p> <p><i>(3) The herring spawning piling restriction plan must present include:</i></p> <ol style="list-style-type: none"> <i>1. updated underwater noise modelling, which must be based on final project parameters to be used to install piles</i> <i>2. details of any mitigation measures to be employed</i> <i>3. comparisons against the modelling presented within the Environmental Statement and Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic herring spawning grounds.</i> <p><i>(4) If the updated underwater noise modelling referred to in sub-paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work Nos. 1A and/or 4A will impact the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.</i></p> <p><i>(5) Any piling activity within Work Nos. 1A and 4A during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) or in accordance with any approval given by the MMO under sub-paragraph (4) above.</i></p> <p><i>(6) In this condition—</i></p> <p><i>"Herring Spawning Noise Restriction Boundary" means the boundary indicated by the red line on the herring spawning area plan, with the restricted area being the area shoreward of this boundary</i></p> <p><i>"herring spawning plan" means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)</i></p> <p><i>"herring spawning season" means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;</i></p> <p><i>"piling area" means any area within Work Nos. 1A and/or 4A within which one or more piled foundations is proposed to be installed.]</i></p>	<p>The Applicants have been discussing the wording for this condition with the MMO and have now agreed the amended wording below:</p> <p><i>30.—(1) No piling activity can commence within Work Nos. 1B and 4B during the herring spawning season until a herring spawning piling restriction plan (in accordance with the herring spawning plan) is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.</i></p> <p><i>(2) The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.</i></p> <p><i>(3) The herring spawning piling restriction plan must present updated underwater noise modelling, which must be based on final project parameters to be used to install piles and must include details of any mitigation measures to be employed.</i></p> <p><i>(4) If the updated underwater noise modelling referred to in sub-paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work Nos. 1A and/or 4A will impact:</i></p> <ol style="list-style-type: none"> <i>(a) the area shoreward of the Herring Spawning Noise Restriction Boundary, and/or</i> <i>(b) any area within 38km seaward of MHWS,</i> <p><i>during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.</i></p> <p><i>5) Any piling activity within Work Nos. 1B and 4B during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) or in accordance with any approval given by the MMO under sub-paragraph (4) above.</i></p> <p><i>(6) In this condition—</i></p> <p><i>"Herring Spawning Noise Restriction Boundary" means the boundary indicated by the red line on the herring spawning area plan, with the restricted area being the area shoreward of this boundary</i></p> <p><i>"herring spawning plan" means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)</i></p> <p><i>"herring spawning season" means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;</i></p> <p><i>"piling area" means any area within Work Nos. 1B and/or 4B within which one or more piled foundations is proposed to be installed.</i></p> <p>This agreement is recorded within The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]. If the SoS believes that a restriction for piling noise should be imposed on the Projects to mitigate impacts to spawning herring the Applicants suggest the updated without prejudice wording included in The Applicants' and the MMO's</p>

I.D.	Marine Management Organisation's Response	Applicants' Response
		Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6] should be imposed alongside the Without Prejudice Herring Spawning Plan (Revision 2) [REP9-020]. As such, the Applicants submit that the suggested wording provided by MMO should be disregarded as it has been superseded by discussions between the parties.
1.2.10	The MMO has continued to engage with the Applicant on this matter but has not had time to share this update prior to Deadline 9 or with any other interested parties.	The Applicants received the MMO's Deadline 9 submission on 10 th July 2025 and have continued to engage with the MMO during the ExA's recommendation period, with meetings being held on 5 th August 2025 and 15 th September 2025 to discuss the MMO's Deadline 8 / 9 responses and reach agreement on solutions to the concerns raised therein. This agreement is recorded within The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]. If the SoS believes that a restriction for piling noise should be imposed on the Projects to mitigate impacts to spawning herring the Applicants suggest the updated without prejudice wording included in The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6] should be imposed alongside the Without Prejudice Herring Spawning Plan (Revision 2) [REP9-020]. As such, the Applicants submit that the suggested wording provided by MMO should be disregarded as it has been superseded by discussions between the parties.
1.2.11	To date the Applicant has failed to present appropriate UWN modelling to demonstrate that underwater noise and vibration will not cause behavioural responses in herring, either migrating to/from, or at their spawning grounds. The MMO is content for discussions to continue post consent however requests the conditions secure the correct information to be able to decide post consent, and these should be based on evidence, rather than compromise, and that where there is a lack of evidence, a precautionary approach should be adopted.	<p>As mentioned in I.D. 1.2.1, a key disagreement was discussed during Examination between the Applicants and the MMO regarding the potential noise impacts caused by piling on herring during their spawning season. The issues relating to this matter are summarised in Summary of Herring Noise Impact Discussions During Examination [REP7-134], and in section 5.5 of The Applicants' Closing Statements [REP8-042].</p> <p>However, given the differing positions on the need for a restriction, the Applicants provided 'without prejudice' wording for a condition that could be imposed if required by the SoS.</p> <p>The Herring Spawning Noise Restriction Boundary shown on the 'Without Prejudice' Herring Spawning Plan [REP7-135], has been drawn along what is considered a realistic, evidence led, boundary dividing a distinct region of higher and lower potential for herring spawning. If the without prejudice condition was applied and the precautionary 135dB behaviour threshold contour (based on underwater noise modelling of the final project design) as modelled post-consent, lay seaward of the proposed Herring Spawning Noise Restriction Boundary this will result in a minimum distance of 38km between the coast and the 135dB contour, this distance increases rapidly to both the north and south of Flamborough Head. If post-consent modelling based on noise parameters proposed for construction demonstrated that the 135dB behaviour threshold contour lay landward of the Herring Spawning Noise Restriction Boundary then piling could not take place during the restricted period.</p> <p>Notwithstanding the above, the Applicants note agreement in relation to this matter has been reached with MMO in relation to the without prejudice herring noise restriction issues. This agreement is recorded within The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6]. If the SoS believes that a restriction for piling noise should be imposed on the Projects to mitigate impacts to spawning herring the Applicants suggest the updated without prejudice wording included in The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6] should be imposed alongside the Without Prejudice Herring Spawning Plan (Revision 2) [REP9-020].</p>

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1.2.12	The MMO requests that should the ExA recommend/SoS decision include alternative dates or conditions then these are provided to the MMO prior to decision for review to ensure the understanding on the post consent discharge process and provide any further comments to be considered. Should this be the case the MMO would request the decision letter is clear what evidence was used.	No response is required. However, if the ExA or SoS considers amending what is in the current Draft DCO (Revision 12) [REP9-003] or the suggested wording agreed between the Applicants and the MMO in The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6], the Applicants would kindly request the opportunity to comment on suggested amended wording before implementation.
1.2.13	The MMO would highlight that within Hornsea 4 Offshore Wind Farm decision the seasonal restriction was reduced, as no work has taken place, it is unclear the impact of this, but the in combination assessment of refinement of restrictions for multiple projects will likely have an overall impact on the Herring in future years.	No response is required.
1.3.1	1.3 Closing statement on the Herring restriction for cable corridor This matter is relating to the cable works within the herring spawning habitat and the disturbance and loss of the habitat. For the avoidance of doubt the Applicant has provided further information and the MMO is content the only impacted area for disturbance is between KP20-KP40. The MMO is also content with REP8-045 - 18.5 Cable Installation Works Restricted Area Plan.	The Applicants welcome the MMO's agreement.
1.3.2	The Applicant has included the below condition within the relevant DMLs (noting the Works number changes depending on the Schedule) (REP7-012). The MMO highlighted within REP7-148 that the MMO was largely content with the conditions, dependant on the documents that were referred to within the conditions being agreed.	No response is required.
1.3.3	The MMO provided detail technical comments within REP8-048 and advised that we are not content with the back calculation technical report Appendix 10-3. In relation to the comment 3.3.7 on updating the date from 1 August - 31 October to 10 August - 30 September this was an example of the type of calculation and information the MMO would expect in this document and the MMO does not agree that the evidence within this document allows the date to change to 10 August - 30 September as a period of settlement also needs to be included.	<p>The Applicants have continued to engage with the MMO and Cefas during the ExA's recommendation period, with meetings being held on 5th August 2025 and 15th September 2025 to discuss the MMO's Deadline 8 / 9 responses and reach agreement on solutions to the concerns raised therein.</p> <p>Regarding a period of settlement, at the meeting on the 15th September the Applicants presented evidence from plume dispersion modelling of export cable installation using the worst case installation method (jetting) and worst case volume and footprint of sediment disturbed (see Appendix 8-3 Marine Physical Processes Modelling Technical Report (Revision 3) [REP2-017]).</p> <p>A time series plot showing the duration of increased suspended sediment concentrations following construction activity was extracted at a point located within the Offshore Export Cable Corridor at approximately KP21. The time series shows that SSC increase and then return to background levels within a 2-hour period. The finer fraction will be transported by the tide and predictions of changes in seabed level show that between KP20 and KP40 the sediment settles within 500m of the point of disturbance resulting in changes in seabed level of less than 2cm. This small area reflects the short (<2 hrs) duration of the disturbance and subsequent resettling.</p> <p>A time series plot from a point at KP80 shows similar characteristics with disturbance and resettling occurring in a period of less than 2 hours, within 500m of the point of disturbance. Therefore, the Applicants consider that <i>no post-work settlement period is required</i>.</p> <p>During the meeting, MMO and Cefas agreed that no more than 24hrs was needed to allow waves of herring to move into the area for spawning. In the efforts of resolving the issue, the Applicants agree to a 24-hour post-work settlement period. This has been represented in an updated Appendix 10-3 Back-calculation of the Peak Atlantic Herring Spawning Period (Revision 2) [document reference: 7.10.10.3]</p>

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		and sent to the MMO on 3 rd October for comment. However, they have been unable to review prior to formal submission.
1.3.4	<p>As the MMO is not content with the back calculation technical report the MMO has made a minor change to the condition below and requested in REP8-048 that the Applicant must include a commitment within the commitments register that the comments raised in REP8-048 will be considered in the updated Back Calculation Technical Report post consent. The MMO is unsure if this update to the commitments register will be included and highlights that this is a major concern. If this is not included then the report will likely be submitted similar to as is and therefore the MMO would reject any reduction in the restricted period.</p> <p><i>28.—(1) The cable installation works listed at sub-paragraphs (a) – (f) below must not be undertaken on the seabed within the restricted area during the restricted period, unless otherwise agreed in writing by the MMO:—</i></p> <p><i>(a) pre-sweeping;</i></p> <p><i>(b) dredging;</i></p> <p><i>(c) mechanical ploughing;</i></p> <p><i>(d) cutting;</i></p> <p><i>(e) water jetting; and</i></p> <p><i>(f) cable burial operations.</i></p> <p><i>(2) No later than sixteen weeks (or such other period as agreed by the MMO in writing) prior to the commencement of any licensed activities in sub-paragraph (1) within Work No. 3B, a Back Calculation Technical Report, which must include details of the restricted period, must be submitted to the MMO for approval.</i></p> <p><i>(3) The licensed activities in sub-paragraph (1) within Work No. 3B must not commence until the MMO has approved the Back Calculation Technical Report.</i></p> <p><i>(4) In this condition—</i></p> <p><i>"Back Calculation Technical Report" means an updated version of environmental statement Appendix 10-3, which must include evidence to support the restricted period, including reference to a period of settlement;</i></p> <p><i>"cable installation works restricted area plan" means the plan certified by the Secretary of State as the cable installation works restricted area plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified);</i></p> <p><i>"restricted area" means the area of seabed within Work No. 3B between KP20 and KP40 as shown on the cable installation works restricted area plan";</i></p> <p><i>"restricted period" means 1 August to 31 October inclusive or such other period indicated by the Back Calculation Technical Report as the period when herring are most likely to have spawned and where eggs and newly hatched larvae should be undisturbed to avoid any adverse impacts to those eggs or larvae and any such alternative period must be agreed with the MMO in writing.</i></p>	<p>The Applicants have continued to engage with the MMO and Cefas during the ExA's recommendation period, with meetings being held on 5th August 2025 and 15th September 2025 to discuss the MMO's Deadline 8 / 9 responses and reach agreement on solutions to the concerns raised therein. The Applicants have updated Appendix 10-3 Back-calculation of the Peak Atlantic Herring Spawning Period (Revision 2) [document reference: 7.10.10.3] and sent to the MMO on 3rd October for comment. However, they have been unable to review prior to formal submission.</p> <p>The Applicants submitted an updated Commitments Register (Revision 4) [REP9-009] at Deadline 9, which included a commitment to update the Back Calculation Report (where agreed) post-consent based on most recent IHLS information.</p> <p>In relation to the suggested amendment to the Deemed Marine Licence (DML) condition drafting, the Applicants are content with the wording proposed by the MMO.</p>
1.3.5	<p>The MMO would highlight that the Applicant has currently set out information on a shorter restricted period, and the MMO cannot agree and unless further evidence is provided post consent will likely not be in a position to agree the dates within Appendix 10-3.</p>	<p>The Applicants acknowledge that at the end of Examination a shorter restricted period had been suggested within Appendix 10-3 Back-calculation of the Peak Atlantic Herring Spawning Period [REP6-014]. However, meetings held on 5th August 2025 and 15th September 2025 discussed the MMO's comments and issues were resolved. Amendments were made to the document, with Appendix 10-3</p>

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		Back-calculation of the Peak Atlantic Herring Spawning Period (Revision 2) [document reference: 7.10.10.3] being issued to the MMO on 3 rd October for comment. However, they have been unable to review prior to formal submission.
1.3.6	The MMO has continued to engage with the Applicant on this matter but has not had time to share this update prior to Deadline 9 or with any other interested parties.	The Applicants received the MMO's Deadline 9 submission on 10 th July 2025 and have continued to engage with the MMO during the ExA's recommendation period, with meetings being held on 5 th August 2025 and 15 th September 2025 to discuss the MMO's Deadline 8 / 9 responses and reach agreement on solutions to the concerns raised therein.
1.3.7	The MMO requests that should the ExA recommend/SoS decision include alternative dates or conditions then these are provided to the MMO prior to decision for review to ensure the understanding on the post consent discharge process and provide any further comments to be considered. The MMO would highlight that in the Hornsea Four Offshore Wind Farm the seasonal restriction for piling was reduced as part of the decision and the MMO queried the evidence base for it as the impact would have happened during migration route and settlement therefore would not prevent impact prior to spawning beginning. Should this be the case the MMO would request the decision letter is clear what evidence was used.	No response is required. However, if the ExA or SoS considers amending what is in the current Draft DCO (Revision 12) [REP9-003] or the suggested wording agreed between the Applicants and the MMO in The Applicants' and the MMO's Post-Examination Joint Position on the without prejudice herring noise restriction [document reference: 20.6], the Applicants would kindly request the opportunity to comment on suggested amended wording before implementation.
1.4.1	1.4 Closing statement on the Monitoring The MMO understands Natural England (NE) still has outstanding concerns in relation to the In Principle Monitoring Plan (IPMP) (REP7-116) and the required monitoring not yet agreed with the Applicant.	The Applicants' note Natural England's concerns on the In Principle Monitoring Plan (IPMP) (Revision 5) [REP7-116] and have continued to engage during the ExA's recommendation period, with a meeting held on 16 th September 2025 to discuss Natural England's Deadline 9 documents and reach agreement on solutions to the concerns raised therein. Following the meeting, the Applicants provided revised wording regarding secondary scour and monitoring of disposal mounds in the IPMP for comment. At a meeting on the 2 nd October 2025, Natural England advised that they were in agreement with the changes made in the IPMP, which is reflected in section 1.2 of the Natural England SoCG Update [document reference: 20.3].
1.4.2	The MMO advised we were largely content with the IPMP but noted the outstanding concerns.	No response is required.
1.4.3	The MMO has reviewed the following documents when formulating a response: <ul style="list-style-type: none"> PD-028 – The Examining Authority's Schedule of Recommended Amendments to the Applicant's draft Development Consent Order REP8-004 – Draft Development Consent Order (Revision 11) (Tracked REP8-056 – Risk & issues log for deadline 8 (Rev. 8) REP8-042 - 18.2 The Applicants' Closing Statements REP8-043 - 18.3 The Applicants' Responses to Deadline 7 Documents 	
1.4.4	The MMO has provided updates to conditions for consideration of the ExA/SoS.	See responses to I.D. 1.4.5 to 1.4.29, below.
1.4.5	Changes to Condition 15(1)(a) In the ExA recommendation document PD-028 the ExA proposed the following condition: Schedule 10 DML1 - Part 2, 20(4)(e) Schedule 11 DML2 - Part 2, 20(4)(e) Schedule 12 DML3 - Part 2, 18(4)(e) Schedule 13 DML4 - Part 2, 18(4)(e)	Please see the Applicants' Comments on the Examining Authority's Proposed Schedule of Changes to the Draft Development Consent Order [REP7-130], which sets out the Applicants' position on the ExA's proposed drafting. In summary, the Applicants do not agree that the proposed condition is necessary or proportionate, for the following reasons:

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	<p><i>(e) a survey of seabird densities and distributions in the study area to identify areas where impacts are likely to be particularly high. The report must include an explanation of how this additional post consent ornithological mapping has influenced the array, size or layout to mitigate impacts as much as possible.</i></p>	<ol style="list-style-type: none"> 1. The Applicants note that Natural England is not requesting more surveys be undertaken (see Natural England's Comments on the Examining Authority's Schedule of Recommended Amendments to the Applicant's Draft Development Consent Order [REP7-151]); 2. The Applicants have already followed the mitigation hierarchy and sought to avoid and minimise potential impacts on ornithological receptors (see paragraphs 138 – 141 of The Applicants' Closing Statements [REP8-042]); 3. Any changes would be likely to reduce the capacity of the arrays; 4. The Applicants have already considered density mapping data and have already taken steps to reduce the array areas to avoid areas of higher species density (see Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots (Revision 2) [REP8-040]). Since the close of examination, the Applicants have undertaken further modelling in order to address Natural England's remaining comments and have submitted Spatial modelling of baseline seabird data for Dogger Bank South [document reference: 20.4] to the SoS. It is therefore not necessary to include a condition to require this work to be done; 5. Additional survey work would not provide any material evidence for which to inform any further refinement of the Projects Array Areas; 6. Hotspot modelling is an unreliable basis on which to conduct any boundary changes or micro-siting; 7. Additional surveys would delay delivery of the Projects; and 8. DMLs 3 and 4 (Schedules 12 and 13) are not relevant as the proposed wording only relates to the Array Areas.
1.4.6	<p>The MMO has reviewed the Applicants' and NE's comments and believes this is for the SoS to consider within their decision. Should the SoS include the condition then requests the following is considered and detailed comments provided within the decision report:</p> <ol style="list-style-type: none"> 1) Should this be better placed within the DCO? 2) If the decision is to remain within the DML; what is the expectation of the MMO after consultation with the SNCB? E.g. would the layout require changing? 3) If the condition should remain within the DML, then the condition should be included as part of the layout plan (Condition 15(1)(a) below) as no additional survey is required just further analysis based on the information provided to date. <p><i>15(1) The licensed activities or any phase of those activities must not commence until the following (insofar as relevant to that activity or phase of activity) have been submitted to and approved in writing by the MMO, in consultation with Trinity House, the MCA, the relevant statutory nature conservation body and UKHO as appropriate —</i></p> <p><i>(a) a layout plan setting out proposed details of the authorised scheme, including the:</i></p> <p><i>(i) number, dimensions, specification, foundation type(s) and depth for each wind turbine generator and offshore accommodation platform;</i></p> <p><i>(ii) the grid coordinates of the centre point of the proposed location for each wind turbine generator and offshore accommodation platform;</i></p>	<p>As set out above, the Applicants' position is that the suggested condition does not meet the relevant legal tests as it is not necessary or proportionate.</p> <p>The Applicants submit that this work has already been carried out and has been submitted to the Examining Authority in Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots (Revision 2) [REP8-040]. The Applicants sought to accommodate all requests from Natural England in relation to the provision of this information but note that Natural England (in their Deadline 8 Cover Letter [REP8-051]) has also requested additional modelling to be undertaken, which was not possible previously due to the time constraints of the examination. Given the variability of seabird distributions through time, the monthly snapshots requested by Natural England are not considered to represent static and consistent locations and therefore additional modelling is not considered worthwhile but have been provided in Spatial modelling of baseline seabird data for Dogger Bank South [document reference: 20.4] to seek to resolve Natural England's outstanding concerns. The raw data of monthly locations provided in Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots (Revision 2) [REP8-040] also offers very similar information should it be required.</p> <p>As stated previously, density mapping data has already been considered and the Applicants have already taken steps to refine the boundaries of the Array Areas to avoid areas of higher species density. Specifically, Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots (Revision 2) [REP8-040] shows instances where higher densities were noted at the previous boundary between The Crown Estate leasing areas, for example with gannet and kittiwake in the non-breeding season. This data was</p>

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	<p>(iii) proposed layout of all cables;</p> <p>(iv) location and specification of all other aspects of the authorised scheme; and</p> <p>(v) any exclusion zones or micro-siting requirements identified pursuant to 15(1)(e)(iv) or relating to any habitats of principal importance, Annex I subtidal habitats or surficial 120 deposits of glacial till identified as part of surveys undertaken in accordance with condition 20; and</p> <p>(vi) an analysis of seabird densities and distributions in the study area from baseline survey data to identify areas where impacts are likely to be particularly high. The report must include an explanation of how this additional post-consent ornithological mapping has influenced the array, size or layout to mitigate impacts as much as possible.</p> <p>to ensure conformity with the description of Work No. 1A and 4A and compliance with conditions 1 to 5;</p>	<p>then used to support the refinement of the Array Areas that took place following the submission of the Projects Preliminary Environmental Information Report (PEIR) and prior to the submission of the Environmental Statement (ES) (see section 4.7.1 of Chapter 4 - Site Selection and Assessment of Alternatives (Revision 3) [REP7-028] for further information. Following this refinement, the DBS Array Areas no longer overlap with these areas of higher abundance estimates, as demonstrated in this Appendix.</p> <p>Despite the Applicants' views as set out above and the work already presented, the Applicants have sought to address the outstanding comments from Natural England since the close of examination and have undertaken further modelling which is presented in Spatial modelling of baseline seabird data for Dogger Bank South [document reference: 20.4]. As this work has already been carried out, it is therefore not necessary for a condition to be included to require it to be undertaken.</p> <p>Following the close of Examination, the Applicants have continued to address Natural England's remaining comments on the matter. The proposed outputs of this additional work were to:</p> <ul style="list-style-type: none"> Undertake hotspot modelling for five species: kittiwake, guillemot, razorbill, puffin, gannet; Provide maps for species-specific seasons; Provide monthly hot spot maps for each species, where possible; Use standardised z-axis (i.e. colour scale) for each species to allow comparison between months/seasons; Overlay the 'refined' boundaries and buffers (of the submitted wind farm design); and Provide full model and diagnostic details – for >100 models (subject to robust model fitting). <p>The proposed outputs of the work were shared with Natural England prior to the work commencing, with Natural England responding via email on 20th August 2025 that they were 'on the whole happy with the proposed outputs', with minor clarifications issued to Natural England following this email.</p> <p>The final outputs of this report are presented in Spatial modelling of baseline seabird data for Dogger Bank South [document reference: 20.4]. These additional outputs show little to indicate the presence of any areas of consistently high or low activity from the spatial models for any species that could be used to justify further refinement of the Array Areas.</p> <p>Therefore, Spatial modelling of baseline seabird data for Dogger Bank South [document reference: 20.4] further supports both the evidence provided in Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots [REP7-137] and [REP8-040] and the Applicants' position that all reasonable steps have already been taken to avoid potential areas of high abundance for ornithological receptors, and that additional survey work would not provide any material evidence with which to inform any further refinement of the DBS Array Areas.</p> <p>The Applicants provided a draft of Spatial modelling of baseline seabird data for Dogger Bank South [document reference: 20.4] to Natural England on 2nd October 2025, however there was insufficient time for it to be reviewed prior to formal submission. This is reflected in section 1.4 of the Natural England SoCG Update [document reference: 20.3].</p>
1.4.7	<p>The MMO notes this wording has been agreed with NE but it was unable to be shared with the Applicant prior to Deadline 9 submission. However, the MMO notes that the Applicant provided comments at Deadline 8 to NE's response and does not agree that this is required and that further information was provided in 17.10 Appendix A -</p>	<p>As set out above, the Applicants have sought to accommodate all of Natural England's requests in relation to the information presented in Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots (Revision 2) [REP8-040] and since the close of examination have undertaken the additional modelling</p>

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	Offshore Ornithology Year 1 and 2 Combined Spatial Plots (REP7-137). The MMO notes NE welcomes this document but believes it still doesn't address their concerns and notes the concerns have been raised since Preliminary Environmental Information Report (PEIR). The MMO defers to NE on the technical nature of these discussions. The MMO agrees that this is only relevant to DMLs with turbines included and therefore not relevant to Schedule 12 DML3 and Schedule 13 DML4.	work requested. It is therefore not necessary for a condition to be imposed requiring this work to be undertaken. The Applicants welcome the MMO's agreement that the proposed condition would only be applicable to DMLs 1 and 2 (Schedules 10 and 11).
1.4.8	Changes to Condition 15(1)(b) The MMO has made a minor update to this condition below and believes this update is required to ensure that each relevant topic has a standalone monitoring plan (where no overlap occurs), this allows for the documents to be discharged more efficiently post consent.	The Applicants are willing to agree the principle of having standalone monitoring plans for each of the topics and are content with the amended wording to condition 15(1)(b) suggested by the MMO.
1.4.9	The MMO notes the current IPMP only sets out that the Ornithology monitoring will be submitted in a standalone plan. For example, if there were outstanding issues raised within consultation in relation to benthic monitoring but no issues relating to marine mammal monitoring the MMO would be unable to discharge the whole plan until the issues had been resolved.	
1.4.10	The MMO has included "unless otherwise agreed in writing with the MMO" which will allow further discussion post consent where monitoring may overlap and this would be better for one plan to be submitted.	
1.4.11	The MMO notes this has not been suggested previously by the MMO and has included a condition based on the comments from NE and the ExA recommended changes to the DCO.	
1.4.12a	The MMO notes this wording has been agreed with Natural England but was unable to be shared with the Applicant prior to Deadline 9 submission. <i>15(1)...(b) a construction programme and monitoring plan (which accords with the in principle monitoring plan) which, save in respect information submitted pursuant to sub-paragraph (b)(iii)(aa), is to be submitted to the MMO at least six months prior to commencement of licensed activities and to include details of—</i> <i>(i) the proposed construction start date;</i> <i>(ii) proposed timings for mobilisation of plant delivery of materials and installation works;</i> <i>(iii) proposed pre-construction surveys, baseline report format and content, construction monitoring, post-construction surveys and monitoring and related reporting in accordance with conditions 20, 21 and 22 to be submitted to the MMO in accordance with the following (unless otherwise agreed in writing with the MMO):—</i> <i>(aa) at least six months prior to the first survey, detail of the pre-construction surveys and an outline of all proposed pre-construction monitoring;</i> <i>(bb) at least six months prior to construction, detail on construction monitoring; and</i> <i>(cc) at least six months prior to commissioning, detail of post-construction (and operational) monitoring;</i> <i>(iv) an indicative written construction programme for all wind turbine generators and cables including fibre optic cables comprised in the works at Part 1 (licensed marine activities) of this Schedule (insofar as not shown in paragraph (ii) above); and</i>	

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	(v) a monitoring plan <i>for each topic identified, unless otherwise agreed in writing with the MMO, setting out the circumstances in which monitoring will be required and the monitoring to be carried out in such circumstances;</i>	
1.4.12b	<p>Changes to Condition 20 Pre-construction monitoring and surveys</p> <p>20.—(1) <i>The undertaker must, in discharging condition 15(1)(b), submit a monitoring plan or plans in accordance with the in principle monitoring plan for written approval by the MMO in consultation with the relevant statutory nature conservation body, which must contain details of proposed monitoring and surveys, including methodologies and timings, and a proposed format and content for a pre-construction baseline report.</i></p> <p>(2) <i>The survey proposals submitted under sub-paragraph (1) must be in accordance with the principles set out in the in principle monitoring plan and must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the post-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.</i></p> <p>(3) <i>The baseline report proposals submitted under sub-paragraph (1) must ensure that the outcome of the agreed surveys, together with existing data and reports, are drawn together to present a valid statement of the pre-construction position, with any limitations, and must make clear what post-construction comparison is intended and the justification for this being required.</i></p> <p>(4) <i>The pre-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, include, but not be limited to, the need to undertake—</i></p> <p>(a) <i>a survey to determine the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till in the parts of the Order limits in which it is proposed to carry out construction works;</i></p> <p>(b) <i>a swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which it is proposed to carry out construction works including an appropriate buffer around the location of each work;</i></p> <p>(c) <i>undertake any monitoring required by the SIP submitted in accordance with condition 16; and</i></p> <p>(d) <i>undertake or contribute to any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g).;</i></p> <p><i>(e) any marine mammal monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including information on indirect effects;</i></p> <p><i>(f) any sandeel monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including information on indirect effects;</i></p> <p><i>(g) any benthic monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b); and</i></p> <p><i>(h) any marine processes monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b).</i></p> <p>(5) <i>The undertaker must carry out the surveys specified within the monitoring plan or plans in accordance with that plan or plans, unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.</i></p>	<p>The Applicants are content with the list of topics included in the amended wording by the MMO. However, the Applicants do not agree that it is necessary to include reference to “information on indirect effects” in relation to marine mammals and sandeel at the proposed new conditions 20(4)(e) and (f).</p> <p>With regards to marine mammals, the Applicants note that Natural England confirmed at Deadline 9 of the Examination in their Risk and Issues Log (Rev 9) [REP9-031] that the issue they had previously raised in relation to indirect effects to marine mammals as a result of impacts on prey species had been satisfactorily resolved. The Applicants therefore submit that it is not necessary for information on indirect effects to be provided as part of any marine mammal monitoring.</p> <p>In relation to sandeel, the Applicants' position is that monitoring for indirect effects is not required. Natural England have suggested that monitoring is required 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. However, any monitoring of predator species (marine mammals and bird species) is already secured through the provision of monitoring plans for those species. In addition, Natural England appears to suggest that the requested monitoring is required to “fill evidence gaps” rather than being necessary as a result of the proposed development. The Applicants therefore submit that the inclusion of such a provision would fail to meet the relevant legal tests.</p> <p>The Applicants' preferred amended wording for condition 20(4)(e) and (f) is therefore:</p> <p><i>(e) any marine mammal monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including information on indirect effects;</i></p> <p><i>(f) any sandeel monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including information on indirect effects;</i></p> <p>In relation to the MMO's new proposed wording at condition 20(7), the Applicants suggest that it would be more appropriate for reports to be made publicly available and submitted to relevant evidence databases within six months of those reports being approved by the MMO, rather than on completion of the monitoring itself. It can take some time for the reports to be produced and finalised after the monitoring has been completed and the Applicants would also want to ensure that the version of each relevant report that is made publicly available is that which has been submitted to and approved by the MMO. The Applicants would also suggest that “relevant evidence databases” is not very precise and would suggest adding “as agreed with the MMO” to ensure that there is clarity over which databases are being referred to. The amended wording proposed by the Applicants for condition 20(7) is therefore:</p> <p><i>(7) All monitoring reports must be made publicly available and submitted to relevant evidence databases (as agreed with the MMO) no later than six months following written approval of the relevant report by the MMO under this condition, completion of the monitoring required unless otherwise agreed in writing by the MMO.</i></p>

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	<p>(6) When any surveys are carried out in accordance with sub-paragraph (5) a survey report must be submitted to the MMO following completion of the relevant survey. Any report submitted under this sub-paragraph must be submitted prior to the commencement of licensed activities for the relevant stage.</p> <p>(7) All monitoring reports must be made publicly available and submitted to relevant evidence databases no later than six months following completion of the monitoring required unless otherwise agreed in writing by the MMO.</p>	
1.4.12C	<p>Changes to Condition 21 Construction monitoring and surveys</p> <p>21.—(1) The undertaker must, in discharging condition 15(1)(b), for each phase of construction submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with the relevant statutory nature conservation bodies of any proposed monitoring and surveys, including methodologies and timings, to be carried out during the construction of the authorised scheme. The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.</p> <p>(2) In the event that driven or part-driven pile foundations are proposed, such monitoring must include measurements of noise generated by the installation of the first four piled foundations of each piled foundation type to be installed unless the MMO otherwise agrees in writing.</p> <p>(3) The undertaker must carry out the surveys approved under sub-paragraph (1), including any further noise monitoring required in writing by the MMO, and provide the agreed reports in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.</p> <p>(4) The results of the initial noise measurements monitored in accordance with sub-paragraph (2) must be provided to the MMO within six weeks of the installation of the first four piled foundations. The assessment of this report by the MMO will determine whether any further noise monitoring is required. If, in the reasonable opinion of the MMO in consultation with the relevant statutory nature conservation body, the assessment shows significantly different impacts to those assessed in the environmental statement or failures in mitigation, all piling activity must cease until an update to the marine mammal mitigation protocol and further monitoring requirements have been agreed.</p> <p>(5) The undertaker must carry out the surveys specified in the construction monitoring plan in accordance with that plan, including any further noise monitoring required in writing by the MMO under sub-paragraph (4), unless otherwise agreed in writing by the MMO in consultation with the relevant statutory nature conservation body.</p> <p>(6) Construction monitoring must include vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan, including the provision of reports on the results of that monitoring by automatic identification system at the end of each year of the construction period to the MMO, MCA and Trinity House.</p> <p>(7) In the event that piled foundations are proposed to be used, the details submitted in accordance with the marine mammal mitigation protocol must include proposals for monitoring marine mammals.</p> <p>(8) All monitoring reports must be made publicly available and submitted to relevant evidence databases no later than six months following completion of the monitoring required unless otherwise agreed in writing by the MMO.</p>	<p>Please see the Applicants' response in row 1.4.12b above. The Applicants propose the following wording is used instead of that suggested by the MMO, for the reasons set out above:</p> <p>(8) All monitoring reports must be made publicly available and submitted to relevant evidence databases <i>(as agreed with the MMO)</i> no later than six months following <i>written approval of the relevant report by the MMO under this condition</i>, completion of the monitoring required unless otherwise agreed in writing by the MMO.</p>
1.4.12d	<p>Changes to Condition 22 Post-construction monitoring and surveys</p> <p>22.—(1) The undertaker must, in discharging condition 15(1)(b), submit details (which accord with the in principle monitoring plan) for approval in writing by the MMO in consultation with relevant statutory nature conservation</p>	<p>The Applicants are willing to agree the principle of listing individual topics and associated monitoring plans but propose the following amendments to the suggested new conditions 22(3)(f) and (g):</p>

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	<p>bodies of proposed post-construction monitoring and surveys, including methodologies and timings, and a proposed format, content and timings for providing reports on the results.</p> <p>(2) The survey proposals must specify each survey's objectives and explain how it will assist in either informing a useful and valid comparison with the pre-construction position and/or will enable the validation or otherwise of key predictions in the environmental statement.</p> <p>(3) The post-construction surveys referred to in sub-paragraph (1) must, unless otherwise agreed in writing with the MMO, have due regard to, but not be limited to, the need to—</p> <p>(a) undertake a survey to determine any change in the location, extent and composition of any habitats of principal importance, Annex 1 subtidal habitat, habitat with suitability for sandeel or surficial deposits of glacial till identified in the pre-construction survey in the parts of the Order limits in which construction works were carried out. The survey design must be informed by the results of the pre-construction benthic survey and the construction benthic surveys;</p> <p>(b) undertake, within 12 months of completion of the licensed activities, a full sea floor coverage swath-bathymetry survey to IHO Order 1a standard that meets the requirements of MGN654 and its annexes, and side scan sonar, of the area(s) within the Order limits in which construction works were carried out to assess any changes in bedform topography and such further monitoring or assessment as may be agreed to ensure that cables (including fibre optic cables) have been buried or protected;</p> <p>(c) undertake any monitoring required by the SIP submitted in accordance with condition 16;</p> <p>(d) undertake post-construction vessel traffic monitoring in accordance with the outline vessel traffic monitoring plan by automatic identification system for a duration of three consecutive years following the completion of construction of the authorised project, unless otherwise agreed in writing by the MMO, with provision for a report to be submitted annually to the MMO, Trinity House and the MCA; and</p> <p>(e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g);</p> <p>(f) any marine mammal monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including monitoring operational underwater noise levels along with a verification process to check impacts remain within those predicted within the environmental statement;</p> <p>(g) any sandeel monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including information on indirect effects and how the monitoring will validate predictions regarding heat impacts on sediment from inter-array cables.</p> <p>(h) any benthic monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b).</p> <p>(i) any marine processes monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b).</p> <p>(4) The undertaker must carry out the surveys agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation bodies.</p> <p>(5) In the event that the reports provided to the MMO under sub-paragraph (4) identify a need for additional monitoring, the requirement for any additional monitoring will be agreed with the MMO in writing and implemented as agreed.</p>	<p>(f) any marine mammal monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including monitoring operational underwater noise levels along with a verification process to check impacts remain within those predicted within the environmental statement;</p> <p>(g) any sandeel monitoring required by the monitoring plan submitted in accordance with condition 15(1)(b), including information on indirect effects and how the monitoring will validate predictions regarding heat impacts on sediment from inter-array cables.</p> <p>The reasons for the Applicants' suggested changes are included in rows 1.4.13 - 1.4.17 below for marine mammals and rows 1.4.18 - 1.4.21 below for sandeel.</p> <p>The Applicants would also suggest that the MMO's suggested wording for condition 22(6) is amended as follows (for the reasons given in row 1.4.12b above):</p> <p>(6) All monitoring reports must be made publicly available and submitted to relevant evidence databases (as agreed with the MMO) no later than six months following written approval of the relevant report by the MMO under this condition, completion of the monitoring required unless otherwise agreed in writing by the MMO.</p>

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	<i>(6) All monitoring reports must be made publicly available and submitted to relevant evidence databases no later than six months following completion of the monitoring required unless otherwise agreed in writing by the MMO.</i>	
1.4.13	<p><u>For marine mammal monitoring:</u></p> <p>In the ExA recommendation document PD-028 the ExA proposed the following condition:</p> <p>Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 22(3)(e) Schedule 12 – DML3; Schedule 13 – DML4: Part 2, 20(3)(e)</p> <p><i>(e) undertake any marine mammal monitoring referred to in the marine mammal mitigation protocol submitted in accordance with condition 15(1)(g), including monitoring of operational underwater noise levels along with a verification process to check they remain within those predicted within the environmental statement; and..</i></p>	<p>The Applicants responded to the ExA's suggested wording in The Applicants' Comments on the Examining Authority's Proposed Schedule of Changes to the draft Development Consent Order [REP7-130], as follows:</p> <p><i>"The Applicants do not propose to update the Draft DCO (Revision 10) [document reference 3.1] because the Applicants do not consider the conclusion of no significant impact to marine mammals from operational noise in the ES to warrant further monitoring requirements. Such a requirement appears to be unprecedented, and as such would affect the relative competitiveness of the Dogger Bank Projects in comparison with other schemes with similarly sized turbines who do not have such a condition included in their DCO.</i></p> <p><i>This recommendation is not relevant to Schedule 12 DML3 and Schedule 13 DML4 as these do not allow for the erection of wind turbines."</i></p> <p>The Applicants note that since the close of the Projects' examination, DCOs have been granted for Mona Offshore Wind Farm and Morgan Offshore Wind Farm and neither of those included requirements for the monitoring of operational underwater noise. Paragraph 4.83 of the SoS's decision letter in relation to Morgan explains that the ExA <i>"concluded that further marine mammal monitoring measures would not be necessary, considering there is no deficiency in the Applicant's assessments and without clear rationale identified for carrying out monitoring, the information gathered may not prove relevant to future projects [ER 3.8.105]."</i></p> <p>The Applicants submit that the same position would apply in the case of the Projects, where there is no clear rationale for carrying out the monitoring due to the conclusion of no significant impact to marine mammals from operational noise. The Applicants submit that such a condition would therefore fail to meet the relevant legal tests.</p>
1.4.14	The MMO has updated both the pre-construction and post-construction conditions to allow for the baseline information to be provided to ensure comparison against the operational monitoring can be provided.	The Applicants do not agree with the wording proposed by the MMO and do not agree that the imposition of such a condition is necessary or proportionate, for the reasons set out above.
1.4.15	The MMO notes this wording has been agreed with Natural England but was unable to be shared with the Applicant prior to Deadline 9 submission. However, the MMO notes that the Applicant provided comments at Deadline 8 to NE's response and does not agree that this is required due to the conclusion of no significant impact. The MMO notes that the modelling for operational underwater noise is based on wind turbine generators that are significantly smaller than those that will be installed (which has been acknowledged by the Applicants) so it is unknown how reliable the evidence and the conclusion is, and NE considers this to be a key evidence gap which requires monitoring. The MMO notes that this is a reason set out within Section 1.4 of the IPMP, where monitoring may be required.	
1.4.16	The MMO has reviewed the Applicants' and NE's comments and believes this is for the SoS to consider within their decision as there is a fundamental disagreement. Should the SoS include the condition then the MMO requests the conditions are updated as above. Should the SoS not include a condition then the MMO requests detailed comments provided within the decision report to ensure it is clear why these were not included.	

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1.4.17	The MMO agrees that this is only relevant to DMLs with turbines included and therefore not relevant to Schedule 12 DML3 and Schedule 13 DML4 or Schedule 14 DML5 and Schedule 15 DML6.	The Applicants agree with the MMO's comments.
1.4.18	<p>For Benthic and sandeel indirect effect monitoring:</p> <p>In the ExA recommendation document PD-028 the ExA proposed the following condition:</p> <p>Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 22(3)(f)Schedule 12 – DML3;Schedule 13 – DML4 Part 2, 20(3)(f),Schedule 14 – DML5:Part 2, 16(3)(d)</p> <p><i>(f) undertake any monitoring necessary to validate the predictions made in the ES and HRA with respect to potential effects from indirect impacts on benthic Annex I habitats and linked receptor groups as relevant. Discussions should take place in advance with the MMO in consultation with the statutory nature conservation body on how potential indirect ecosystem impacts will be monitored and reported and written agreement on the approach to monitoring and evaluating indirect effects should be obtained from the MMO in consultation with the statutory nature conservation body before construction commences.</i></p>	<p>The Applicants maintain their position as set out in their response to the ExA's suggested wording in The Applicants' Comments on the Examining Authority's Proposed Schedule of Changes to the draft Development Consent Order [REP7-130]:</p> <p><i>"The Applicants submit that the requirement for monitoring of potential effects from indirect impacts on benthic Annex I habitats and linked receptor groups is already secured through the In Principle Monitoring Plan (Revision 5) [document reference 8.23] and therefore does not require securing through the Draft DCO.</i></p> <p><i>The Applicants have explained the approach to monitoring for these indirect impacts in Appendix E - Ecological Halo Effects Technical Note (Revision 2) [document reference 15.7]:</i></p> <p><i>"76. The In Principle Monitoring Plan (Revision 4) [document reference 8.23] highlights that monitoring should take account of the set of broad benthic monitoring objectives which Natural England and the Joint Nature Conservation Committee have produced. These cover the conservation objectives for the Dogger Bank SAC and can be applied to developments across the Dogger Bank Zone. These objectives are:</i></p> <ul style="list-style-type: none"> <i>• Objective 1: Determine the impacts on and recovery rates of sandbank physical features affected by wind farm installation, including large and fine scale topography, sediment composition and distribution;</i> <i>• Objective 2: Characterise and identify impacts on benthic biodiversity and community structure as a result of windfarm installation, i.e. changes in abundance, composition and distribution of native communities;</i> <i>• Objective 3: Determine the impacts of hard substrate infrastructure introduction on sedimentary benthic communities; and</i> <i>• Objective 4: Assess the impact of Objectives 2 and 3 on the wider community and structure i.e. linked receptors groups including epifauna, fish and birds.</i> <p><i>77. Objectives 2 – 4 directly relate to potential halo effects (and (4) reef or refugia effects).</i></p> <p><i>78. The Applicants do not propose detailed methods at this time. As stated in the In Principle Monitoring Plan (Revision 4) [document reference 8.23], proposals for monitoring should be based, as a starting point, on the best practice and outcomes of the latest review of environmental data associated with post-consent monitoring of licence conditions of Offshore Wind Farms (MMO, 2014) and applying more recent best practice guidance and lessons learnt (including from the existing Dogger Bank A, B and C and Sofia programmes) where relevant."</i></p> <p><i>The drafting of the condition is also not suitably precise and not necessary or reasonable, on the basis that it is already secured through the IPMP.</i></p> <p><i>No updates to the Draft DCO are proposed in this regard."</i></p>
1.4.19	The MMO has updated both the pre-construction and post-construction conditions to allow for the baseline information to be provided to ensure comparison against the operational monitoring can be provided.	The Applicants have commented above on the suggested amendments to the conditions and do not agree with the wording proposed by the MMO for the reasons set out above (see row 1.4.12b and 1.4.12d).
1.4.20	The MMO notes this wording has been agreed with Natural England but was unable to be shared with the Applicant prior to Deadline 9 submission. However, the MMO notes that the Applicant provided comments at Deadline 8 to NE's response and does not agree that this is required as this is already within the IPMP. The MMO	As set out in I.D. 1.4.12b above, Natural England have suggested that monitoring is required 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. However, any monitoring of

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	understands the NE disagrees with this as whilst the Applicants have committed to doing benthic sampling for sandeel and halo effects, there is no consideration of 'linked receptor groups'. The MMO defers to NE in relation to the technical detail.	predator species (marine mammals and bird species) is already secured through the provision of monitoring plans for those species. In addition, Natural England appears to suggest that the requested monitoring is required to "fill evidence gaps" rather than being necessary as a result of the proposed development. The Applicants therefore submit that the inclusion of such a provision would fail to meet the relevant legal tests.
1.4.21	The MMO has reviewed the Applicants' and NE's comments and believes this is for the SoS to consider within their decision. Should the SoS include the condition then the MMO requests the conditions are updated as above. Should the SoS not include a condition then the MMO requests detailed comments provided within the decision report to ensure it is clear why these were not included as a condition. It would also be helpful to the MMO to understand what the post consent expectations are in relation to this matter to be discussed in full within the decision report so it is clear to the MMO what will be required as part of the approval of the monitoring plan post consent.	The Applicants have commented above on the suggested amendments to the conditions and do not agree with the wording proposed by the ExA or the MMO for the reasons set out above (see I.D. 1.4.12b, 1.4.12d and 1.4.18).
1.4.22	The MMO has also reviewed the recommended changes to Condition 29 and has included a condition for all monitoring to be shared in each of the monitoring conditions.	The Applicants are content with the principle of the MMO's suggestion but have proposed amended wording (see I.D. 1.4.29 below).
1.4.23	<p>Adaptive management</p> <p>The MMO notes that the ExA recommended updates to the conditions to include adaptive management wording. The MMO has agreed the process wording within the IPMP but would highlight that our position is that an adaptive management condition should be included as a standalone condition. The MMO notes NE's comments on updated wording and would welcome this "...the requirement for any additional monitoring and/or remedial action will be agreed with the MMO in writing and implemented as agreed..."</p>	<p>The Applicants' position, as previously agreed with the MMO, has always been that the adaptive management process to be followed, in the event that monitoring shows a higher impact than was concluded in the ES, is secured through the In Principle Monitoring Plan (Revision 5) [REP7-115]. Paragraph 17 of that document sets out that:</p> <p><i>"The scope and design of all monitoring work should be finalised and agreed following review of the results of any preceding survey and / or monitoring work (i.e. an adaptive monitoring approach), including those surveys conducted in support of the EIA. This includes the potential for survey requirements to be adapted based on the results of the monitoring outlined in this document, including in the event that unforeseen effects arise, which may in turn give rise to the need for adaptive management measures to be considered. In the event that a review of the construction monitoring results shows a greater impact than that assessed in the ES, the Applicants will use an adaptive management approach. Within the monitoring reports, the Applicants will provide a review of the monitoring results to determine whether results show an impact assessed either within or above those in the ES with justification of this conclusion supported by an interpretation of the monitoring results. Where the Applicants consider that the monitoring results show an impact greater than that assessed in the ES, the monitoring report will include proposals for solutions and/or additional monitoring that the Applicants will submit to the MMO and SNCBs for further discussion. Where it has been agreed that there are no significant effects, monitoring need not be conditioned through the DMLs."</i></p> <p>The Applicants note that adaptive management conditions have been included in some (but not all) recent offshore wind farm DCOs and that the inclusion of such a provision has been dependent on individual circumstances and has not become the default position without consideration of whether such a condition is necessary and proportionate.</p> <p>It is the Applicants' position that the condition as currently drafted does not meet the necessary legal tests as it is not sufficiently precise or certain what the Applicants would be committing to undertake. It is also not necessary or proportionate to include such a condition when the process for adaptive management is set out and secured through the construction programme and monitoring plan to be submitted and</p>

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		approved under condition 15(1)(b) of DMLs 1 and 2 (and equivalent provisions in the other DMLs), which must be in accordance with the In Principle Monitoring Plan.
1.4.24	The MMO does note that if a condition is required then Condition 22 (5) may need amended so there is no overlap.	For the reasons set out above, the Applicants do not agree that a standalone adaptive management condition is necessary but agree with the MMO that if the SoS disagrees with the Applicants' position and imposes a standalone adaptive management condition then condition 22(5) would need to be amended to ensure that there is no overlap.
1.4.25	<p>The MMO also agrees with NE that the below sentence is not required. The MMO notes that the adaptive management/mitigation would not be able to begin until consent was granted and believes this sentence is not necessary.</p> <p><i>Where a separate consent is required to undertake the agreed adaptive management or mitigation, the undertaker shall only be required to undertake the adaptive management or mitigation once the consent is granted.</i></p>	The Applicants agree that this wording is not necessary.
1.4.26	<p>Changes to condition 29 Ornithological monitoring</p> <p>In the ExA recommendation document PD-028 the ExA proposed the following condition:</p> <p>Schedule 10 – DML1; Schedule 11 – DML2: Part 2, 29(4)</p> <p><i>(4) The ornithological monitoring plan must provide details of proposed post-construction and operational surveys, including methodologies and timings, and a proposed format, content and timings for providing post-construction and operational monitoring reports. The plan must—</i></p> <p><i>(a) specify each bird species survey objectives and explain how it will assist in informing a useful and valid comparison with the pre-construction position for each bird species and how it will enable the validation or otherwise of key predictions in the environmental statement;</i></p> <p><i>(b) have due regard to the need to undertake monitoring to determine the distribution and behaviour of each bird species within the array areas of the proposed developments and the rates of collision and avoidance of each bird species with wind turbine generators within the array areas; and</i></p> <p><i>(c) ensure that the outcome of the agreed surveys together with existing data and reports are drawn together to present a valid statement of the postconstruction and operational position, with any limitations, and must make clear what pre-construction comparison is intended and the justification for this.</i></p> <p><i>(5) The undertaker must carry out the surveys for each bird species as agreed under sub-paragraph (4) and provide the post-construction and operational monitoring reports to the MMO and Natural England in the agreed format and in accordance with the agreed timetable, unless otherwise agreed in writing by the MMO, in consultation with Natural England.</i></p> <p><i>(6) Any monitoring report compiled in accordance with the monitoring schemes required under sub-paragraph (4) must be provided to the MMO and Natural England no later than four months following completion of the monitoring to which it relates, unless otherwise agreed in writing by the MMO, in consultation with Natural England.</i></p> <p><i>(7) All monitoring reports must be made publicly available and submitted to relevant evidence databases no later than six months following completion of the monitoring required by the ornithological monitoring plan unless otherwise agreed in writing by the MMO, in consultation with Natural England</i></p>	<p>The Applicants provided their response to the ExA's proposed wording in The Applicants' Comments on the Examining Authority's Proposed Schedule of Changes to the draft Development Consent Order [REP7-130]:</p> <p><i>"The Applicants could not find equivalent wording in any other Offshore Wind Farm DCO but are aware that similar condition wording was imposed within the Rampion 2 DCO by the Secretary of State, specifically for great black-backed gull and that the ExA have adapted this wording as part of their recommendation for the Projects.</i></p> <p><i>The reason the Secretary of State chose to include such a condition in the Rampion 2 DCO was because the ExA's report concluded that there could be a significant effect in respect of great black-backed gull when considered cumulatively with other offshore windfarms. As the Applicant concluded the significance of effect to be negligible (not significant), they did not provide adequate mitigation or compensation for great black-backed gull. The Secretary of State therefore took the decision to amend the condition wording to include requirements for a great black-backed gull monitoring plan to be approved by the MMO in consultation with NE to determine whether the effects are as predicted by the Applicant. The Applicants do not consider this to be appropriate as the context in which this wording was created by the Secretary of State is neither applicable to the DBS Projects or suitably precise.</i></p> <p><i>The Applicants have already provided monitoring proposals for displacement of auks from the operational wind farm site, and collision risk in section 1.6.7 of the In Principle Monitoring Plan (Revision 5) [document reference 8.23]. These proposals have been put forward for impacts and species where there are evidence gaps and/or where the EIA and/or RIAA conclude a significant impact or AEoI, including where these conclusions have been taken on a without prejudice basis. This monitoring is in addition to the monitoring that will be undertaken to determine the success of compensatory measures for kittiwake and guillemot that are outlined in Appendix 1 - Project Level Kittiwake Compensation Plan (Revision 6) [REP6-010] and Appendix 2 - Guillemot [and Razorbill] Compensation Plan (Revision 5) [REP6-012]. The drafting of the condition is also not necessary or reasonable, on the basis that this monitoring is already detailed and secured through the IPMP.</i></p>

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		<p>The identified measures in the IPMP (Revision 5) [document reference: 8.23] would form the basis of discussions with Natural England in order to determine those most appropriate to take forward to implementation post-consent to form the Ornithological Monitoring Plan.</p> <p>As stated in response to [REP3-056], reiterated in the Applicants' response at Deadline 6 [REP6-052] and repeated here for convenience: 'The Applicants consider that it is important to retain flexibility in In Principle Monitoring Plans (IPMPs) to allow for the incorporation of new information as studies of seabird ecology in relation to offshore wind farms is constantly developing and do not propose to further update the IPMP for offshore ornithology within this Examination. Further detail on the monitoring aims and hypotheses will be provided in the development of these proposals in collaboration with Natural England and other statutory nature conservation bodies in the post-consent stages of the Projects.'</p> <p>With regard to adaptive management, following a meeting with the MMO on 13th May 2025, the Applicants agreed to update the IPMP to include further detail on the adaptive management process that the Applicants would implement in the event that monitoring showed a higher impact than was concluded in the ES and submitted the updated IPMP at Deadline 5. In the MMO's Deadline 6 submission [REP6-069], it states that "the MMO welcomes the updates to include adaptive management. The MMO will always prefer a condition on the face of the DML but is content with the wording within the IPMP". The Applicants therefore consider the matter of adaptive management resolved and do not propose to update the Draft DCO (Revision 10) [document reference 3.1].</p> <p>The Applicants have updated the IPMP (Revision 5) [document reference: 8.23] to provide further details on content of the ornithological monitoring plan as provided in the ExA's recommended condition wording at Deadline 7."</p>
1.4.27	MMO has reviewed the Applicants' and NE's comments and believes most the additional information relating to monitoring is not required as this is captured within the IPMP. The MMO has proposed additional changes to the condition to link to the IPMP and to ensure the information is shared.	The Applicants agree with the MMO's position.
1.4.28	The MMO notes this wording has been agreed with Natural England but was unable to be shared with the Applicant prior to Deadline 9 submission. However, the MMO notes that the Applicant provided comments at Deadline 8 to NE's response and does not agree that this is required as this is already within the IPMP. The MMO notes that most of this information is within the IPMP and defers to any remaining outstanding issues that should be included.	The Applicants welcome the MMO's agreement that the information is captured within the IPMP and therefore does not need to be listed in the condition.
1.4.29	<p>Should the SoS include the condition then the MMO requests the condition is updated to:</p> <p>29.—(1) <i>The licensed activities or any phase of those activities must not commence until an ornithological monitoring plan in accordance with condition 15(1)(b) setting out the circumstances in which ornithological monitoring will be required and the monitoring to be carried out in such circumstances has been submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.</i></p> <p>(2) <i>The ornithological monitoring plan must be submitted in writing to the MMO no later than six months prior to the first pre-construction survey.</i></p> <p>(3) <i>The undertaker must carry out any monitoring agreed under sub-paragraph (1) and provide the agreed reports to the MMO in the agreed format in accordance with the agreed timetable, unless otherwise agreed in writing with the MMO in consultation with the relevant statutory nature conservation body.</i></p>	<p>The Applicants are content with the additional wording suggested by the MMO for condition 29(1).</p> <p>The Applicants would suggest the following amendments are made to the new wording proposed for condition 29(4) for the reasons given in row 1.4.12b above:</p> <p>(4) <i>All monitoring reports must be made publicly available and submitted to relevant evidence databases (as agreed with the MMO) no later than six months following written approval of the relevant report by the MMO under this condition, completion of the monitoring required unless otherwise agreed in writing by the MMO, in consultation with Natural England.</i></p>

I.D.	Marine Management Organisation's Response	Applicants' Response
	<i>(4) All monitoring reports must be made publicly available and submitted to relevant evidence databases no later than six months following completion of the monitoring required by the ornithological monitoring plan unless otherwise agreed in writing by the MMO, in consultation with Natural England</i>	
2.1.1	Comments on Applicant's Draft DCO Tracked Changes (REP8-004) and The Applicants' Responses to Deadline 7 Documents (REP8-043) 2.1 DCO and DML Major Comments The MMO welcomes the addition of splitting DML 5 in two and creating DML 6, this ensures that each undertaker has a separate DML for all works.	The Applicants welcome the MMO's agreement.
2.1.2	The MMO welcome the changes to condition 30 in DML 1 and 2 to include the relevant work numbers.	
2.1.3	Then MMO welcomes the changes to condition 28 in DML 3 and 4, noting the "without prejudice" has been removed and relevant work numbers have been included.	
2.2.1	2.2 Disposal Through email correspondence between the MMO and the Applicant on 07 July 2025 the MMO has agreed the suggested additional wording to include "and any other disposal sites approved in writing by the MMO" which will allow further disposal site to be designated for use post consent.	The Applicants welcome the MMO's agreement.
2.2.2	The MMO considers all disposal matters resolved.	
2.3.1	2.3 Coastal Processes The information provided in REP03-23 and REP5-040 is, detailed in terms of numerical characterisation but lacks a statement of what it all 'means' when considered together – by which the MMO means that the cliff erosion rate at Landfall is discussed in terms of multiple interpretations of historical cliff retreat rates, but there is no mention in this of the longshore transport, wave climate data i.e., no explanation, or interpretation, of why rates should change or differ over time. There are several questions from the Environment Agency in REP3-023 which effectively query the same thing – why rates differ and why one estimate should be considered more reliable than another. In this report, the Applicants expressly dismisses systems models as unreliable – and does not provide any conceptual model either.	<p>The Applicants included multiple scenarios in their predictions of cliff retreat within the various revisions of the Coastal Erosion Technical Note [AS-116, REP3-023] and the Assessment of Coastal Processes at the Dogger Bank South Landfall [REP5-040] based on advice from the Environment Agency who requested different future climate scenarios were presented, and that the outputs from the newly released (January 2025) National Coastal Erosion Risk Mapping 2 were also included. The Applicants followed this advice, which has resulted in an iterative assessment throughout the examination period. They also provided a discussion outlining the differences between the scenarios/approaches in Section 4 of Coastal Erosion Technical Note (Revision 2) [REP3-023], concluding "<i>Considering NCERM2 is published by the Environment Agency, and that it is advertised as 'providing the most up to date national picture of coastal erosion risk for England', understanding of cliff retreat rates at the landfall should be informed by this national dataset</i>".</p> <p>The Applicants advise that NCERM2 utilises the outcomes of the Defra / Environment Agency research project SC120017 Shore and Cliff Sensitivity to Accelerated Sea Level Rise¹ which is underpinned by the Soft Cliff and Platform Erosion [SCAPE] system model².</p>

¹ <https://www.gov.uk/flood-and-coastal-erosion-risk-management-research-reports/shore-and-coastal-erosion-sensitivity-to-accelerating-sea-level-rise#documents>
² <https://coastalmonitoring.org/ccoresources/iCOASST/SCAPE/>

I.D.	Marine Management Organisation's Response	Applicants' Response
2.3.2	Although we cannot be certain of the degree of conservatism in the estimates of cliff retreat as there is a lack of an explanatory model, this simply means that it is not possible to judge how conservative any estimate of future coastal change is because we can't relate it to system process changes.	See response to I.D. 2.3.1 above.
2.3.3	As the Applicant has committed to long trenchless installation and avoidance of nearshore cable protection, we consider this to be precautionary responses to uncertainty in the system processes.	The Applicants welcome the MMO's recognition of the mitigation measures already committed to by the Applicants and the precautionary nature of the assessment undertaken.
2.3.4	The MMO considers this issue to be resolved.	The Applicants welcome the MMO's confirmation that they consider this matter resolved.
3.1.1	3. Comments on Applicants response to ExA's schedule of recommended amended to the applicant – Table 2.6 (REP8-043) 3.1 General Comments The MMO welcomes the following changes/additions/agreements: <ul style="list-style-type: none"> • Definition of undertaker • The inclusion of "and offshore accommodation platform" as per requirement 4 • The agreement to not included the North Norfolk Coast and Wash Special Area of Conservation and Humber Estuary SAC within condition 2. • Condition 21 (2) which relates to piling monitoring – the MMO agreed this section 5 of REP8-048 	No response is required.
3.2.1	3.2 Other Comments The MMO has no concerns and has no preference whether the project must commence no later than five or seven years.	The Applicants acknowledge this response.
3.2.2	The MMO has provided comments on monitoring and ornithology conditions in Section 1 of this document.	See responses to I.D. 1.4.5 - 1.4.7, and I.D. 1.4.26 – 1.4.29.
4.1.1	4. MMO's Review of Environmental Statement (ES) Chapters The MMO has reviewed the following Chapters: <ul style="list-style-type: none"> • REP7-023 - 7.0 Environmental Statement Non-Technical Summary (Revision 2) (Tracked) • REP7-025 - 7.1 Environmental Statement Chapter 1 - Introduction (Revision 2) (Tracked) • REP7-027 - 7.3 Environmental Statement Chapter 3 - Policy and Legislative Context (Revision 2) (Tracked) • REP7-029 - 7.4 Environmental Statement Chapter 04 Site Selection and Assessment of Alternatives (Revision 3) (Tracked) • REP7-030 - 7.4.1 Environmental Statement Chapter 4 - Site Selection and Assessment of Alternatives Figure 4-1 to Figure 4-37 (Revision 2) • REP7-033 - 7.5 Environmental Statement Chapter 5 - Project Description (Revision 4) (Tracked) • REP7-034 - 7.5.1 Environmental Statement Chapter 5 Project Description - Figure 5-1 to Figure 5-4 (Revision 3) • REP7-036 - 7.8 Environmental Statement Chapter 8 - Marine Physical Environment (Revision 2) (Tracked) • REP7-037 - 7.8.1 Environmental Statement Chapter 8 - Marine Physical Environment Figure 8-1 to Figure 8-13 (Revision 3) • REP7-039 - 7.9 Environmental Statement Chapter 9 - Benthic and Intertidal Ecology (Revision 2) (Tracked) 	No response is required.

I.D.	Marine Management Organisation's Response	Applicants' Response
	<ul style="list-style-type: none"> REP7-040 - 7.9.1 Environmental Statement Chapter 9 - Benthic and Intertidal Ecology Figure 9-1 to Figure 9-6 (Revision 2) REP7-041 - 7.9.9.5 Appendix 9-5 Biotopes of Designated Sites REP7-043 - 7.10 Environmental Statement Chapter 10 - Fish and Shellfish Ecology (Revision 2) (Tracked) REP7-044 - 7.10.1 Environmental Statement Chapter 10 - Fish and Shellfish Ecology Figure 10-1 to Figure 10-10 (Revision 2) REP7-046 - 7.11 Environmental Statement Chapter 11 - Marine Mammals (Revision 2) (Tracked) REP7-047 - 7.11.1 Environmental Statement Chapter 11 Marine Mammals - Figure 11-1 to Figure 11-6 (Revision 2) REP7-049 - 7.13 Environmental Statement Chapter 13 Commercial Fisheries (Revision 2) (Tracked) REP7-050 - 7.13.1 Environmental Statement Chapter 13 - Commercial Fisheries Figure 13-1 to Figure 13-2 (Revision 2) REP7-052 - 7.14 Environmental Statement Chapter 14 - Shipping and Navigation (Revision 2) (Tracked) REP7-053 - 7.14.1 Environmental Statement Chapter 14 - Shipping and Navigation - Figure 14-1 to Figure 14-7 (Revision 2) REP7-055 - 7.14.14.2 Environmental Statement Appendix 14-2 - Navigational Risk Assessment (Revision 2) (Tracked) REP7-063 - 7.17 Environmental Statement Chapter 17 - Offshore Archaeology and Cultural Heritage (Revision 2) (Tracked) 	
4.1.2	<p>The MMO is largely content with the updates to the above ES chapters other than in relation to the fisheries conclusions as per our earlier representations. The MMO supports the relevant SNCBs as well as other relevant interested parties' comments on these documents.</p>	<p>No response is required.</p>
5.1.1	<p>5. Comments on stakeholder's deadline 8 submissions</p> <p>The following documents have been reviewed:</p> <ul style="list-style-type: none"> REP8-016 - 9.3 Environment Agency Statement of Common Ground (Revision 3) REP8-017 - 9.4 Historic England Statement of Common Ground (Revision 3) REP8-020 - 9.7 Maritime and Coastguard Agency Statement of Common Ground (Revision 3) REP8-022 - 9.11 Northern Power Grid Statement of Common Ground (Revision 3) REP8-024 - 9.13 National Federation of Fishermen's Organisation (NFFO) Statement of Common Ground (Revision 3) REP8-026 - 9.16 The Wildlife Trust Statement of Common Ground (Revision 3) REP8-027 - 9.17 Trinity House Statement of Common Ground REP8-028 - 9.18 UK Chamber of Shipping Statement of Common Ground (Revision 3) REP8-029 - 9.19 The Lincolnshire Wildlife Trust Statement of Common Ground (Revision 3) REP8-030 - 9.20 Humber Archaeology Partnership Statement of Common Ground (Revision 3) REP8-031 - 9.22 Dogger Bank A Projco Dogger Bank B Projco Dogger Bank C Projco Statement of Common Ground (Revision 3) REP8-032 - 9.23 Natural England Statement of Common Ground REP8-041 - 17.10 Appendix A - Offshore Ornithology Year 1 and 2 Combined Spatial Plots (Revision 2) (Tracked) REP8-052 – NE's Appendix B8 - End of examination position on the applicant's assessment of marine physical environment & benthic and intertidal ecology 	<p>No response is required.</p>

I.D.	Marine Management Organisation's Response	Applicants' Response
	<ul style="list-style-type: none"> REP8-053 – NE's Appendix G8 - End of examination position on offshore ornithology REP8-054 – NE's Appendix H8 - End of examination position on the applicant's proposed offshore ornithology compensatory measures REP8-055 – NE's Appendix P8 - Comments on Environment Statement Conclusions from Rule 17 letter REP8-056 – NE's Late submission, accepted at the discretion of the Examining Authority. Risk & issues log for deadline 8 (Rev. 8) REP8-057 - The Wildlife Trust Closing Statement AS-183 – RSPB - Updated position and comments AS-184 – NE's comments and updated advice on Fish and Shellfish 	
5.1.2	<p>The MMO notes that the remaining concerns from NE that could impact the DML are:</p> <ul style="list-style-type: none"> Monitoring Cable protection Impacts to Marine Protected Areas 	No response is required. Please see the Applicants' position in The Applicants' Closing Statements [REP8-042].
5.1.3	The MMO is open to further discussion on any topics post-examination	The Applicants have continued to engage with the MMO during the ExA's recommendation period, with meetings being held on 5 th August 2025 and 15 th September 2025 to discuss the MMO's Deadline 8 / 9 responses and reach agreement on solutions to the concerns raised therein.

Appendix A

Memorandum

Memo Number:	006299507-01 (PC2340-RHD-OF-ZZ-NT-Z-0056)
Date:	27 th August 2025
From:	Charlie Cameron
To:	Leah Cameron, Ben Hildreth, Rebecca Reed, Georgina Eastley, Charlie Hobbs
Cc:	Daniel Brutto, Phoebe Meredith, Rosie Foster
Subject:	Herring Boundary Figure Explanatory Note

Introduction

Figure 1 has been produced to illustrate the minimum permissible corridor for herring to transit to the Banks spawning grounds whilst avoiding potential behavioural impacts associated with underwater noise, under the existing proposed 'without prejudice' licence condition. This figure has been created to ensure that MMO and Cefas possess a clear understanding of the minimum benefits that would be achieved in terms of mitigating impacts to spawning Banks herring spawning population should the existing proposed 'without prejudice' licence condition be adopted, allowing them to advise accordingly.

The existing proposed 'without prejudice' licence condition is presented below. Changes to this licence condition as suggested by the MMO in the Deadline 9 response (as submitted post-examination) have been highlighted in yellow for transparency.

1. No piling activity can commence within Work Nos. 1A and 4A during ~~the herring spawning season~~ 1 August to 31 October inclusive until a herring spawning piling restriction plan ~~(in accordance with the herring spawning plan)~~ is submitted to and approved in writing by the MMO, in consultation with the relevant statutory nature conservation body.
2. The herring spawning piling restriction plan must be submitted to the MMO no later than six months prior to the commencement of the relevant activities unless otherwise agreed in writing by the MMO.
3. The herring spawning piling restriction plan must ~~present~~ include:
 1. Updated underwater noise modelling, which must be based on final project parameters to be used to install piles
 2. Details of any mitigation measures to be employed
 3. Comparisons against the modelling presented within the Environmental Statement and Modelling of underwater noise associated with alternative piling locations to inform potential impacts on Atlantic herring spawning grounds.
4. ~~If the updated underwater noise modelling referred to in sub paragraph (3) above demonstrates that noise levels above 135 decibel from any piling area within Work Nos. 1A and/or 4A will impact the Herring Spawning Noise Restriction Boundary during the herring spawning season then any piles located within that piling area must not be installed during the herring spawning season without written approval from the MMO.~~

Memorandum

5. Any piling activity within Work Nos. 1A and 4A during the herring spawning season must be undertaken in accordance with the approved herring spawning piling restriction plan approved under sub-paragraph (1) ~~or in accordance with any approval given by the MMO under sub-paragraph (4) above.~~
6. ~~In this condition:~~
- ~~• "Herring Spawning Noise Restriction Boundary" means the boundary indicated by the red line on the herring spawning area plan, with the restricted area being the area shoreward of this boundary~~
 - ~~• "herring spawning plan" means the document certified by the Secretary of State as the herring spawning plan for the purposes of the Order under article 42 (certification of plans and documents, etc.) and referenced in Schedule 19 (documents to be certified)~~
 - ~~• "herring spawning season" means 1 August to 31 October inclusive or such other period as agreed in writing with the MMO;~~
 - ~~• "piling area" means any area within Work Nos. 1A and/or 4A within which one or more piled foundations is proposed to be installed.~~

Description of Restriction Limitations

The proposed Herring Spawning Noise Restriction Boundary has been informed using the heat mapping methodology described within Kyle-Henney *et al.* (2024), as described within the Heat Mapping Report: Atlantic Herring and Sandell [AS-105]. EMODNet data (constituent to the modelling) is presented independently within this figure due to the critical importance that sediment type has on herring spawning location. The Herring Spawning Noise Restriction Boundary has been drawn in alignment with the large contiguous area of higher potential (≤ 0.05) spawning grounds available to herring in the region surrounding the Projects. Should the 'without prejudice' herring restriction be imposed, the area landward of the Herring Spawning Noise Restriction Boundary could not be overlapped by the 135 db noise contour from ~~1 August to 31 October~~. No reductions to the restricted period are proposed by the Applicants under any circumstances.

As discussed during post-examination meetings with the MMO and Cefas, it is imperative that any restrictions to piling are evidence led, and are not informed by arbitrary values. An evidence-led restriction, with an associated evidence led discharge mechanism, will allow clear and objective discharge of any restriction condition that could be imposed post-consent. This is of paramount importance in terms of both project viability and the rationality of any restriction which might be imposed. An open-ended condition with no clear discharge mechanism would not be fit-for-purpose. Whilst approaches based on the provision of coastal buffers have been considered, the lack of evidence informing herring migration pathways in the region lead to these proposals being largely arbitrary. The approach proposed within the 'without prejudice' herring restriction is clear, evidence-based, precautionary and proportionate. It utilises MMO approved heatmapping methodology, alongside underwater noise modelling to determine a minimum corridor through which herring may transit south to the Banks spawning grounds without

Memorandum

exposure to potential behavioural impacts associated with the precautionary underwater noise thresholds of ≥ 135 dB.

The wording presented within Point 4 of the proposed licence condition prevents any overlap of the 135dB noise contour with the Herring Spawning Noise Restriction Boundary. As a result, significant noise mitigation to prevent this overlap is necessary should piling be undertaken during the herring spawning season. Modelling indicates that a reduction of 7 dB is the minimum requirement to ensure no overlap occurs, as presented in the figure by the "135dB + 7 dB reduction" contour.

This modelled mitigation results in a reduction to the total area of potential behavioural impacts from underwater noise of 48%.

In the absence of noise mitigation, the minimum distance between the coast and the 135 dB contour is ~9.5 km. A 7 dB reduction will result in a minimum distance between the coast and the 135dB + 7 dB reduction contour of ~38 km at Flamborough Head, as indicated on Figure 1. To the north and south of Flamborough Head, this distance increases rapidly, reaching in excess of 60 km at 37 km to the north of this minimum corridor width and 22 km to the south of this minimum corridor. Thus, the noise mitigation required to meet the prescriptions of Point 4 of the without prejudice herring restriction will create a herring migration corridor approximately four times wider than in an unmitigated scenario at its narrowest, with this corridor widening to six times the width of the unmitigated corridor over a relatively short distance.

Therefore, the noise mitigation required to meet the prescriptions of Point 4 of the without prejudice herring restriction will secure a reduction of impact area across the 135db contour of 48% and will ensure that a wide, unimpacted herring migration corridor is maintained throughout the full extent of the herring spawning period. The benefits of the 'without prejudice' mitigation proposal significantly reduces the potential for disturbance effects to occur should herring populations transit eastward from northern spawning grounds before undertaking a southward migration.

The approach proposed utilises a precautionary, evidence led approach. It prevents piling during the herring spawning season without underwater noise mitigation, allows for a wide channel through which herring will be allowed to transit through, and inhibits any overlap of potential behavioural impact thresholds with higher potential herring spawning grounds. The Applicants would welcome further discussion on the merits of the proposed 'without prejudice' mitigation, or alternative reasoned proposals, in light of the further evidence of the benefits of the mitigation provided here.

RWE Renewables UK Dogger Bank
South (West) Limited

RWE Renewables UK Dogger Bank
South (East) Limited

Windmill Business Park
Whitehill Way
Swindon
Wiltshire, SN5 6PB

